RESULTS

OF

METEOROLOGICAL OBSERVATIONS

IN THE FIVE YEARS 1911-1915,

ALSO OF UNDERGROUND TEMPERATURES

IN THE TWELVE YEARS 1898-1910.

MADE AT THE

RADCLIFFE OBSERVATORY, OXFORD.

UNDER THE DIRECTION OF

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F.R.S., F.R.A.S., M.R.I.A.,

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TABLE OF CONTENTS.

PAGE

INTRODUCTION v

RESULTS OF OBSERVATIONS FOR 1911-1915 :—

Daily Results of Meteorological Observations 2, 22, 42, 62, 82

Indications of Schönbein's Ozonometer 14, 34, 54, 74, 94

Summary of the Weather for each Month 15, 35, 55, 75, 95

General Direction and Horizontal Motion of the Wind 18, 38, 58, 78, 98

UNDERGROUND TEMPERATURE AT OXFORD, NOVEMBER, 1898—OCTOBER, 1910 101

Daily Temperature and Mean Monthly Results 129

APPENDIX 205

Table I. Mean Monthly Height of the Barometer for 26 years 206

,, II. Mean Monthly Temperature of the Air for 26 years 207

,, III. Mean Monthly Temperature of Evaporation for 26 years 208

,, IV. Highest Temperature of the Air in each Month for 26 years 209

,, V. Lowest Temperature of the Air in each Month for 26 years 210

,, VI. Monthly Amount of Rain for 26 years 211

,, VII. Monthly Amount of Cloud for 26 years 212

,, VIII. Monthly Amount of Bright Sunshine for 35 years 213

,, IX. Mean Monthly Amount of Ozone for 26 years 214

,, X. Mean Monthly Velocity of the Wind for 35 years 215

PLATE 1. Resistance Box and Galvanometer.

,, 2. Mean Monthly Temperature of the Ground, Nov. 1898—Oct. 1910.

,, 3. Mean Monthly Temperature Gradients.

,, 4. Differences between the Mean Temperatures for each Month and the corresponding Monthly Mean for the whole Period.

Between pages 128 and 129.

INTRODUCTION

TO THE

METEOROLOGICAL RESULTS FOR THE FIVE YEARS, 1911–1915.

THIS volume contains the results of the meteorological observations made at the Radcliffe Observatory, Oxford, during the five years, 1911 to 1915 inclusive.

The arrangement of the volume differs in some important respects from that of its recent predecessors in the same series. In the year 1911, having by means of a special grant for the purpose overtaken the arrears into which the printing of the observations had fallen, it was decided to keep them up to date by printing the principal results annually, and for the convenience of meteorologists who might desire to make immediate use of them a limited number of the separate annual parts, in paper covers, were issued early in the year following that to which each part related.

In this volume these five annual parts have been bound together, composing the first 100 pages, and all the results for a particular year will be found in the part relating to that year.

In consequence of the largely increased volume of astronomical work carried on at this Observatory in recent years, especially in connexion with the investigation of stellar parallax and proper motion now in hand, it was found impossible with the limited staff to continue systematically the measurement of the photographic records of barometric pressure and air-temperature, as was done recently for the six years, 1900–1905, the results of which appeared in Volume XLIX. The photographic results, therefore, do not appear in this volume, but the records continue for the present to be taken as hitherto and are available for reference at any time.

On the other hand this volume differs from its predecessors in containing the results of observations of the temperature of the ground at various depths below the surface by means of platinum-resistance thermometers. The complete series of observations, extending over twelve years from November 1, 1898, to October 31, 1910, appears here for the first time.

In Volume XLVIII an account of the underground temperature observations of 1898 and 1899 has already appeared, but those observations are reprinted in the present volume so that all the material relating to the subject may be found in one place.

A full description of the apparatus and mode of reduction, together with a discussion of the observations and the results to be deduced from them,

will be found on pp. 101–128. Here it is only necessary to express my acknowledgements to Principal Griffiths, University College, Cardiff, for help and encouragement in the early stages of the work, and to Professor Sollas for his kindness in analysing the specimens of gravel taken from the pits in which the thermometers are sunk. The results of this analysis are given in the note on page 128.

In general the routine of meteorological observation has been much the same as that followed in preceding years. The eye-observations are reduced as far as possible on the day following observation. Up to the end of 1912 a telegraphic report was sent daily to the Meteorological Office for use in the Daily Weather Report of that Institution. This was discontinued on January 1, 1913, and since then a daily report has been sent by post. The amount of rain is communicated each week to the Thames Conservancy Board. Various results are communicated each month to the Meteorological Office, the Metropolitan Water Board, Dr. H. R. Mill, Dr. Lockyer, and others, and reports are made annually to the Royal Meteorological Society, the Ashmolean Natural History Society of Oxfordshire, and *British Rainfall*.

Instruments.

For the most part the instruments with which these observations were made are the same as those previously employed, some of them for long periods of time; but a few changes have been made within the period now under review, particulars of which will be found under the several headings printed below. The instruments have been standardized either by comparison with the Kew travelling standards, or directly checked by laboratory or observational methods where such were applicable. Every possible precaution has been taken by the observers to eliminate personal and accidental errors. Some of the observations, too, are checked by the use of duplicate instruments.

Barometer.

The standard barometer was made by Newman in 1838. It is numbered 1220, and its tube is 0·528 inch in diameter. The zero of the graduated scale is marked by the apex of an inverted ivory cone which is adjusted to the surface of the mercury in the reservoir before reading. This cone is the lower extremity of a rod actuated by a thumb-screw, the top of the rod being attached to the divided scale. Thus the position of the scale is shifted before each reading by an amount corresponding to the rise or fall of the surface of the mercury in the cistern since the previous observation. The framework supporting the tube is of brass, the scale and its vernier being engraved on silver. The vernier can be read to 0·001 inch. The correction for capillarity is +0·003 inch. After being in use for many years the instrument was repaired and cleaned by Negretti and Zambra in the year 1879. In the year 1901 a portion of the brass casing

around the cistern was found to be corroded and in need of repair, and the instrument was again entrusted to Negretti and Zambra, who renewed the metal casing, cleaned and reboiled the mercury, and replaced an old thermometer immersed in the cistern by a new one.

The barometer has since remained undisturbed, suspended on the wall in the North-East corner of the Transit-Circle room with its cistern 2½ feet above the floor.

From the year 1880 a correction of +0·001 inch was applied to the readings to reduce them to the indications of the Kew standard, but on Nov. 4–5, 1897, the barometer was compared by Mr. Constable, of the Kew Observatory, and by the staff of this Observatory, with a barometer, Adie 657, brought for the purpose from Kew. This instrument was of about ¼ inch bore, and of the Fortin pattern, and was, both before and after the Radcliffe observations, carefully compared at Kew with the large normal standards of that Observatory. The result of these observations showed that the error was still very small, a correction of only +0·003 inch being required to reduce the Radcliffe readings to the Kew scale.

On Sept. 11, 1902, another opportunity was afforded of comparing the Radcliffe instrument with the above-mentioned barometer, Adie 657, which was brought from Kew Observatory by Mr. Constable, and a series of observations were taken by him and Messrs. Wickham and Robinson of this Observatory. These observations corroborated those of the previous year and showed that an index-correction of +0·003 inch was required to reduce the readings of Newman 1220 to those of the Kew standard.

The barometer was again tested on December 8, 1913, when the Fortin travelling standard 3036 M. O. 1139, belonging to the Meteorological Office, was brought to Oxford by Mr. F. J. W. Whipple. (Superintendent of Instruments) and was hung close beside Newman 1220, with the cisterns of the two barometers at the same height. Before and after comparison with the Newman instrument at Oxford the travelling standard was compared with the normal standards at Kew and the comparison with the Oxford instrument showed that the index-error of the latter had remained unchanged, a correction of +0·003 inch being still required to reduce the readings.

This correction has been applied to all observations contained in the present volume.

At page 237 of *Abstract of the Principal Lines of Spirit-Levelling in England and Wales*, by Colonel Sir Henry James, R.E., F.R.S., London, 1861, it is stated that "a mark on plinth in wall opposite the Observatory, 1·58 feet above the surface, is 209·686 feet above the mean level of the sea at Liverpool". Referred to this mark it is found that the height of the basin of the barometer above the level of the sea may be taken as 212 feet. The readings have been reduced to 32° Fahrenheit, but they are not corrected for the height of the station above the mean sea-level, nor for the variation of gravity with latitude.

Thermometers.

On the *North* side of the main building of the Observatory are:—

A Kew Standard, mounted by Hicks, N°. 576, used as a Dry Bulb.
A Kew Standard, „ „ „ 575, „ „ Wet Bulb.

These instruments (together with the two corresponding bulbs of the thermometers belonging to the thermograph) are supported 5 feet above the ground on a metallic arm in the centre of a large single-louvred wooden screen placed against the North wall of the West wing of the Observatory.

The same thermometers have continued in undisturbed use since March, 1880.

Two spirit minimum thermometers are placed in an exposed position in the North garden about one inch above the grass lawn, which is kept closely cut. One of these thermometers is Casella 70852 and has been in use since January 1, 1889. The other, Negretti and Zambra 123312, is employed as a check on the readings of the Casella instrument and has been in use for this purpose since April 5, 1907.

On the *South* of the main building four thermometers by Negretti and Zambra, viz.:—

N°. 1710, used as a Dry Bulb Thermometer,
„ 1709, „ „ Wet „ „
„ 356, a mercury Maximum „
and „ 363, a spirit Minimum „

have been employed uninterruptedly from December 2, 1878, until the end of the year 1911.

From January 1, 1912, the dry and wet bulb temperatures given in this volume are the readings of two new thermometers sent by the Meteorological Office with a request that we should substitute them for Negretti and Zambra 1709 and 1710, which had been in use for 33 years. The new thermometers, M. O. 37 and 38, were accordingly hung in the screen close beside the old ones for the sake of comparison, but on February 8, 1912, the latter were removed, and from January 1 of the same year the temperatures were made to depend on the indications of the new instruments.

When first received and for some two years afterwards the index-corrections to these two thermometers remained at zero, but during the last two years a negative correction has been indicated which seems to be increasing in magnitude.

The maximum and minimum thermometers, Negretti and Zambra 356 and 363, remain unchanged.

These thermometers are mounted in a double-louvred Stevenson screen at a height of about 4 feet above the grass of the South lawn opposite the Transit-Circle room. There is an intervening space of about 32 feet of gravel walk between the edge of the lawn and the South wall of the West wing of the Observatory. Since November, 1908, the Stevenson screen

has stood at a distance of 5½ feet inside the edge of the lawn. The solar-radiation thermometer, with blackened bulb *in vacuo*, is exposed on a post, 4 feet high, standing East of the Stevenson screen and at a distance of 5½ feet from it. Four of the five platinum-resistance thermometers are buried under one another 3 feet to the West * of this post, and the fifth platinum thermometer at a depth of 10 feet below a point 5 feet to the West of the screen. Two Earth thermometers of Symons's pattern are suspended at depths of 6½ inches and 3 feet 6½ inches, and at distances of 2 feet and 8 feet respectively to the West of the screen, and all are surrounded by iron hurdles, forming an enclosure which measures 30 feet by 12 feet.

The solar-radiation thermometer employed is Negretti and Zambra 130876. The glass outer jacket of this instrument was broken by the heavy hail which fell during a thunderstorm on September 17, 1909. The instrument was sent to London for repair and returned on September 23, 1909, having had a new jacket supplied by the makers. It has been in regular use since then.

Rain-Gauges.

During the period to which this volume relates two rain-gauges have been in regular use, viz.:—

N°. 1. The aperture of this gauge is 8 inches in diameter, and its rim is 20 inches above the grass. It stands in an exposed position in the North garden 121 feet North of the West wing of the Observatory, at a distance of 34 feet from the Northern, and 77½ feet from the Western, walls of the garden.

N°. 2. A self-registering rain-gauge more fully described under the next heading. This gauge is situated nearly west of, and at a distance of 10 feet from, N°. 1.

Midway between the two gauges lie the two grass minimum thermometers, and all are surrounded by a low iron railing enclosing a space of 18 feet by 9 feet.

These gauges have been carefully tested from time to time.

Self-Recording Instruments.

1. An anemograph of Robinson's pattern modified by Beckley, with modern improvements, mounted on the top of the Tower at a height of 116 feet above the ground. The arms of this instrument are 24 inches in length and carry cups of 9 inches diameter. It was erected by the maker, Mr. Munro, in July, 1893, to take the place of an older instrument of similar pattern which had become much worn. The revolving cups of the present instrument are about 2 feet higher than were those of the old anemograph.

* Not *East* as stated in the Introduction to Volume L.

2. A self-registering rain-gauge of Beckley's construction is placed in the North garden close to the 8-inch rain-gauge. The diameter of the collecting funnel is 11·2 inches, and its rim is 2 feet 4 inches above the grass. The receiver, which carries the recording pen, is adjusted to empty itself when exactly one quarter of an inch of rain has fallen. The resulting trace is measured to 0·001 inch.

3. A Campbell-Stokes sunshine-recorder is erected on the top of the Tower, with an uninterrupted exposure from sunrise to sunset.

4. A barograph and a thermograph (whose exposed dry and wet bulbs have already been noted as being contained within the North thermometer-screen) are set up in a room between the Transit-Circle and Mural-Circle rooms in the West wing of the Observatory. Continuous photographic records of the barometric pressure and of the Dry and Wet Bulb temperatures are obtained by means of these instruments. They are of the same type as those employed by the Meteorological Office at the four First Order stations, Valencia, Aberdeen, Falmouth, and Kew, which are fully described, with diagrams, in the *Report of the Meteorological Committee of the Royal Society for the year ending 31st Dec. 1867.*

A brief description of these two instruments and of the method of measuring and reducing the photographic records will be found in the Introduction to Volume XLIX of the *Radcliffe Observations.*

Other Instruments.

A small anemometer by Negretti and Zambra, with 3-inch cups on arms of 6¾ inches, has been mounted since 1883 on the Tower at a height of 113 feet above the ground. This instrument registers by means of two dials up to 5,050 miles.

A Schönbein ozonometer is placed on the South side of the Observatory under the Stevenson screen. Papers prepared by Negretti and Zambra are exposed there to the air, and, after moistening with water, the resulting tints are compared with a specimen scale graduated from 0 to 10.

Among other instruments in the meteorological equipment of the Observatory the most important are, perhaps, the five platinum-resistance thermometers used for determining the temperature of the ground at various depths. These are fully described at pp. 101–128.

RESULTS OF THE OBSERVATIONS MADE IN THE FIVE YEARS, 1911–1915.

In this volume the mean daily results of observations are exhibited in a manner slightly different from the arrangement of recent volumes, all the results for each year being grouped together in an annual section consisting of 20 pages. Thus the results for 1911 will all be found on pages 1 to 20, those for 1912 on pages 21 to 40, and so on.

During the first four years of the period covered by this volume the eye-reading observations were taken three times daily, at 8 a.m., noon,

and 8 p.m., as had been the custom at this Observatory for many years past. On the last day of the year 1914, however, we had the misfortune to lose the services of Mr. James G. Balk, who left to join the Army. Mr. Balk, who held the post of computer, had become a very useful member of the staff, and had in recent years taken a considerable share in the meteorological observations and reductions. When he left it became necessary to redistribute the meteorological duties among the remaining members of the staff, and in order to avoid as far as possible interfering with the astronomical observations at night a change was made in the hours of the meteorological observations. It is obvious that if observers are occupied until late at night in astronomical observations at the telescope they cannot be expected to be up early next morning to secure meteorological readings at 8 a.m. Accordingly a compromise was made and the hours for meteorological observations during the year 1915 were arranged to be 9 a.m., noon, and 9 p.m.

This, of course, entailed a change in the corrections required to reduce the mean of three observations to the mean daily value. These corrections are deduced from the Mean Diurnal Inequalities for the periods 1880–1887 and 1900–1905, as printed on pages 288–299 of Volume XLIX. Taking the mean of the inequalities given in those tables for the three selected hours (8 a.m., noon, and 8 p.m. or 9 a.m., noon, and 9 p.m., as the case may be) we obtain the correction necessary to reduce the mean of three observations made at those hours to the true mean for the day.

The corrections so obtained for each month are given in the following table:—

TABLE I.

Corrections to reduce the mean of three observations to mean daily value.

Month.	Correction to the mean of 8 a.m., noon, and 8 p.m.			Correction to the mean of 9 a.m., noon, and 9 p.m.		
	Barometer.	Temperature of Air.	Temperature of Evaporation.	Barometer.	Temperature of Air.	Temperature of Evaporation.
	in.	°	°	in.	°	°
January	— 0·004	— 0·1	— 0·1	— 0·007	— 0·1	— 0·1
February	— 0·005	0·0	0·0	— 0·008	— 0·2	— 0·1
March	— 0·007	— 0·3	— 0·2	— 0·009	— 0·6	— 0·4
April	— 0·005	— 0·9	— 0·6	— 0·007	— 1·3	— 0·8
May	— 0·004	— 1·3	— 0·9	— 0·007	— 1·4	— 0·9
June	— 0·004	— 1·4	— 0·8	— 0·007	— 1·3	— 0·8
July	— 0·004	— 1·4	— 0·8	— 0·007	— 1·4	— 0·8
August	— 0·005	— 1·0	— 0·7	— 0·007	— 1·2	— 0·8
September ...	— 0·007	— 0·6	— 0·5	— 0·009	— 1·1	— 0·8
October	— 0·005	— 0·4	— 0·3	— 0·007	— 0·8	— 0·6
November	— 0·004	— 0·2	— 0·1	— 0·006	— 0·3	— 0·3
December	— 0·004	— 0·1	— 0·1	— 0·006	— 0·1	— 0·1

Table II exhibits the times at which the various instruments were read and also tne index-corrections which have been applied to the readings of the barometer and thermometers to reduce them to standard values.

TABLE II.

Instrument.	Time of Observation.		Index-Correction applied.				
	1911–1914	1915	1911	1912	1913	1914	1915
	h h	h h	in.	in.	in.	in.	in.
Barometer, 1220	8, noon, 8	9, noon, 9	+0·003	+0·003	+0·003	+0·003	+0·003
Thermometers—			°	°	°	°	°
No. 17249 (attached to Barometer)	,,	,,	−0·8	−0·8	−0·8	−0·8	−0·8
North Dry, 576	,,	,,	−0·1	−0·1	−0·1	−0·1	−0·1
North Wet, 575	,,	,,	−0·1	−0·1	−0·1	−0·1	−0·1
South Dry, 1710	,,	,,	−0·4	...	...	...	...
,, ,, M. O. 38	,,	,,	...	0·0	0·0	−0·2	−0·2
South Wet, 1709	,,	,,	−0·3	...	...	...	...
,, ,, M. O. 37	,,	,,	...	0·0	0·0	−0·2	−0·2
South Max. 356	8 and 8	9 and 9	−0·5	−0·5	−0·5	−0·6	−0·6
South Min. 363	,,	,,	0·0	0·0	0·0	0·0	0·0
Grass Min. 70852	,,	,,	+1·0	+1·0	+1·0	+1·0	+1·0
Solar Max. 130876	8 p.m.	9 p.m.	...	...	...	...	...
Ozone	noon, 8 p.m.	noon, 9 p.m.					
Anemometer	¼ past noon	¼ past noon					
Rain-gauge No. 1	8 a.m.	9 a.m.					

The mean barometer reading given in the tables of Daily Results is the mean of three readings of Newman 1220, made at the hours shown in Table II corrected for index-error and temperature, and reduced to mean daily value by means of the corrections shown in Table I.

The mean temperature of air and that of evaporation are obtained from readings of a dry bulb, and of a wet bulb, thermometer in the Stevenson screen on the South lawn at the hours shown in Table II. The readings are corrected for index-error from Table II and reduced to mean daily value by means of the corrections in Table I. The thermometers Negretti and Zambra 1710 and 1709 were used for this purpose during the year 1911 and M. O. 38 and 37 during the remainder of the period.

The maximum and minimum shade temperatures are the indications of the thermometers Negretti and Zambra 356 and 363. The maximum in the sun is recorded by Negretti and Zambra 130876 and the minimum on grass by Casella 70852, index-corrections being in all cases applied as given in Table II.

The direction of the wind, as shown in the tables of Daily Results, is a mean of the directions as estimated by the observers at the three selected hours of observation. As a test of the degree of accuracy which such isolated eye-readings afford, they should be compared with the results for mean direction arrived at independently from the continuous automatic records as given on pp. 18–20, 38–40, 58–60, 78–80, and 98–100.

The horizontal motion of the air, as given in the same tables, represents the differences of successive daily readings of the small anemometer and is entered to the date of the earlier reading. These differences are taken directly from the figures indicated on the dials of the instrument and require to be increased by about 20 *per cent.* to render them comparable with the results deduced from the large anemograph.

The force of the wind is the mean of three estimations made at 8 a.m., noon, and 8 p.m. during the years 1911–1914, and at 9 a.m., noon, and 9 p.m. in 1915, on Beaufort's scale (0 to 12) as in former years.

The amount of cloud is the mean of three estimations made at the same hours, but on a scale of 0 to 10, in which 0 represents a cloudless sky and 10 a sky completely overcast.

The hours of bright sunshine are obtained from the records of the Campbell-Stokes sunshine-recorder, the measures being made by means of a divided glass scale to 0·05 hour.

The amount of rain is read by means of a scale from the records of the Beckley self-registering gauge. The quantity entered in the tables corresponds to the twenty-four hours from midnight to midnight.

The tables on pp. 14, 34, 54, and 74 exhibit the amount of ozone observed each day at noon and 8 p.m. during the years 1911–1914, and that on p. 94 the amount observed each day at noon and 9 p.m. in the year 1915. The scale runs from 0 (a complete absence of tint) to 10 as a maximum.

On pp. 15–17, 35–37, 55–57, 75–77, and 95–97 will be found a summary of the weather for each month, indicating some of its more important characteristics; the maximum and minimum air-temperatures being taken from the records of the self-registering instruments.

The general direction of the wind and the horizontal motion in miles, as given on pp. 18–20, 38–40, 58–60, 78–80, and 98–100, are taken in the usual way from the records of the anemograph. The latter has been reduced with the factor 3 as found by Dr. Romney Robinson from a long series of experiments. More recent investigations suggest that for instruments such as that employed at the Radcliffe Observatory the factor is more nearly 2·2. To reduce from the old factor to the new it is only necessary to multiply the quantities in the table by the factor 0·733.

Pages 101–204 are devoted to the observations of underground temperature made daily during the twelve years, November, 1898, to October, 1910. These should more properly have been published in the preceding volume,

but at the time of its appearance the discussion of these underground observations had not been completed.

The APPENDIX, pp. 205–215, contains the monthly and yearly means (or amounts) of the readings of the barometer, dry and wet bulb thermometers, rain, cloud, sunshine, ozone, and velocity of the wind, as well as the highest and lowest temperatures of the air, for long periods of time in each case. In former Radcliffe volumes it was customary to print annually in the form of an appendix the separate values of most of these quantities for each month of every year over which the observations had at the time extended. In view of the continually increasing length of these tables this custom was discontinued in Volume XLVII for the sake of economy, and in that and subsequent volumes only the results for the particular years to which each volume related have been printed, together with the general means (or amounts) for long periods. In Volume XLVII, also, two new tables were added which exhibit the highest and lowest temperatures of the air for each month from 1852 to 1891.

To avoid the necessity of referring to six different volumes of our publications in order to consult all the material available the present appendix has been compiled from the partial tables which have appeared in Volumes XLVII, XLVIII, XLIX, and L, together with the new material accumulated in the five years, 1911–1915.

Except in the Tables VIII and X of this appendix, which contain means for 35 years, these tables exhibit the results for the 26 years which have elapsed since 1889, and they may be considered as continuations of the similar tables given in Volume XLVI, and of the tables of highest and lowest air-temperatures contained in Volume XLVII, bringing all up to date.

It should here be pointed out that in the case of the barometer and of the dry bulb and the wet bulb thermometers the figures given in Tables I, II, and III of this appendix for the years 1900 to 1905, inclusive, differ slightly from those already printed in Volume XLIX. The results published in that volume were deduced from the indications of the photographic self-recording instruments, and in this respect they differed from those published in other recent volumes which were based on the eye-observations. In the tables here printed the results of the eye-observations for this period of six years (1900–1905) have been substituted for those which originally appeared in Volume XLIX, so as to make the whole table homogeneous.

Table VIII contains the mean monthly amounts of Bright Sunshine from the time when observations of this kind were commenced at the Radcliffe Observatory, omitting the incomplete records for the year 1880.

Table X exhibits the mean velocity of the wind in each month for the 35 years, 1881–1915. A table of this kind was first printed in our last volume and contained the results for the 30 years, 1881–1910, to which have now been added the results for the five years which have since elapsed.

The observations of wind-velocity for the 30 years, 1881–1910, have been very fully discussed by Mr. W. H. Robinson in a paper entitled "Periodical Variations of the Velocity of the Wind at Oxford", published in the *Quarterly Journal of the Royal Meteorological Society* for April, 1913.

Throughout this work Greenwich Mean Time is used, which is in advance of Oxford local Mean Time by $5^m\ 2^s.6$. The "day" adopted is the ordinary civil day commencing at Greenwich midnight; the hours before and after noon being indicated in the usual manner by the letters a.m. and p.m.

Personal Establishment.

The staff consisted of—

First Assistant . .	Walter Wickham, F.R.A.S.
Second Assistant .	William Henry Robinson.
Third Assistant . .	Henry George Scott Barrett.
Computer	James Godfrey Balk (absent on Military Service since January 1, 1915).

ARTHUR A. RAMBAUT.

RADCLIFFE OBSERVATORY, OXFORD.
16 *May*, 1916.

METEOROLOGICAL OBSERVATIONS

MADE AT THE

RADCLIFFE OBSERVATORY, OXFORD,

1911.

JANUARY, 1911.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·927	40·0	38·0	44·8	33·8	76·2	28·0	NW	331	2·0	6·7	0·60	0·013	1
2	29·744	35·3	32·1	38·5	32·5	62·6	26·9	NNW	410	3·3	6·0	2·45	0·003	2
3	29·900	36·3	34·2	39·1	34·3	66·8	29·5	NE	258	2·3	9·0	2·60	0·008	3
4	29·962	37·8	36·2	39·1	34·8	42·2	32·1	NNE	173	2·0	10·0	0·00	0·004	4
5	29·879	37·2	36·3	39·1	35·6	43·9	32·7	N	195	0·7	10·0	0·00	0·025	5
6	29·570	37·9	36·5	41·4	36·2	41·2	29·1	Var.	227	2·7	6·7	0·00	0·253	6
7	30·015	35·8	34·2	40·9	31·6	80·1	24·0	WSW	230	1·3	5·3	4·15	0·005	7
8	30·097	47·1	46·2	48·8	37·6	50·0	33·9	SW	294	2·0	10·0	0·00	...	8
9	30·083	45·4	44·2	49·3	39·3	53·7	32·8	W	223	2·3	6·7	0·00	0·254	9
10	30·302	37·4	35·5	44·1	32·9	80·7	25·8	WSW	346	1·3	2·7	5·75	...	10
11	29·493	43·7	42·2	46·0	36·0	50·3	30·9	SSW	495	5·0	10·0	0·00	0·161	11
12	29·550	35·1	32·6	45·9	33·0	54·9	30·0	N	379	4·7	8·3	0·60	0·047	12
13	30·032	33·6	31·6	38·9	30·6	67·2	24·2	N	99	1·7	4·3	3·05	...	13
14	30·131	32·0	30·6	40·7	28·1	68·7	22·4	W	58	0·7	1·0	6·00	...	14
15	30·207	32·2	31·3	40·3	27·4	74·0	21·7	Calm	119	0·3	0·7	4·50	...	15
16	30·418	38·1	36·7	47·8	30·2	79·2	22·1	Calm	90	0·3	6·3	5·65	...	16
17	30·524	41·1	39·8	44·4	32·1	56·9	24·7	SW	149	1·0	10·0	0·05	...	17
18	30·515	41·9	39·6	43·2	40·3	48·5	35·9	WNW	107	1·0	10·0	0·00	...	18
19	30·409	35·5	34·7	42·0	33·1	41·3	33·0	WNW	54	1·0	10·0	0·00	...	19
20	30·291	33·7	33·3	37·7	30·3	42·0	30·6	S	120	0·7	10·0	0·00	0·006	20
21	30·052	37·8	37·1	38·6	36·8	39·5	36·0	WSW	92	1·0	10·0	0·00	0·006	21
22	30·114	38·4	36·5	39·7	37·8	46·9	35·8	SSW	55	1·0	10·0	0·00	...	22
23	30·178	33·7	33·4	38·6	31·3	61·8	24·7	Calm	94	0·3	6·7	1·05	0·012	23
24	30·133	39·4	37·8	46·4	29·6	85·9	26·0	SW	353	2·0	9·0	3·10	0·005	24
25	30·036	46·4	44·5	48·6	43·0	54·6	38·2	SW	412	3·0	10·0	0·00	...	25
26	30·183	47·5	45·7	51·6	46·2	88·3	41·7	SW	319	2·7	8·3	1·25	...	26
27	30·212	44·1	41·2	47·5	43·3	52·7	41·1	WSW	173	1·7	10·0	0·00	...	27
28	30·239	43·9	41·8	54·6	37·2	91·7	30·0	WSW	93	1·0	0·7	6·05	...	28
29	30·157	39·1	37·6	44·4	34·1	74·4	26·0	SE	219	1·0	8·7	1·95	...	29
30	30·146	37·3	34·1	43·8	32·4	87·5	26·3	E	275	2·3	3·0	6·90	...	30
31	30·431	29·4	27·0	36·8	24·6	77·8	20·1	ENE	136	1·7	0·0	7·85	...	31
Mean or Sum.	30·095	38·52	36·85	43·31	34·39	62·63	29·55	...	6578	1·74	7·10	63·55	0·802	Mean or Sum.

Weather.

1. Drizzle till noon, then fair. 2. Fine generally; slight snow showers. 3. Fine intervals. 4. Slight rain afternoon. 5. Slight rain early morning and night. 6. Frequent rain till evening, then very fine. 7. Fine generally. 8. Overcast. 9. Rain till late afternoon, then fine. 10. Very fine to fine. 11. Frequent light rain after noon. 12. Cloudy; squally till evening. 13. Fine but hazy after 11h a.m. 14. Fine generally, but hazy. 15. Very fine; hazy. 16. Fine generally. 17. Overcast. 18. Overcast. 19. Overcast. 20. Gloomy; fog early; drizzle evening. 21. Gloomy; slight drizzle. 22. Gloomy. 23. Fine but hazy after noon; fog. 24. Fine generally to overcast and slight rain. 25. Overcast. 26. Cloudy to overcast. 27. Overcast. 28. Very fine generally. 29. Fine midday. 30. Very fine after 9h a.m. 31. Very fine.

FEBRUARY, 1911.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	30·545	26·5	25·5	38·8	20·1	80·5	14·8	NNE	52	1·0	0·0	6·20	...	1
2	30·491	27·8	27·2	32·3	21·0	35·9	15·1	Var.	127	1·0	9·7	0·00	...	2
3	30·355	38·0	36·8	41·5	27·0	48·9	22·9	NNE	168	1·3	9·7	0·00	0·006	3
4	30·334	39·3	38·0	42·5	36·3	55·0	32·6	NNE	145	1·3	9·7	0·00	0·015	4
5	30·320	38·9	37·4	41·9	36·9	55·0	32·6	N	122	1·0	9·7	0·00	0·002	5
6	30·423	35·3	33·2	38·5	34·3	42·7	32·0	NNW	39	1·0	10·0	0·00	...	6
7	30·434	34·5	33·1	37·4	31·1	41·8	23·1	W	85	1·0	10·0	0·00	...	7
8	30·429	37·3	34·7	40·3	33·1	62·1	25·7	N	64	1·0	6·7	1·60	...	8
9	30·159	36·3	33·4	38·4	35·0	44·2	32·2	SE	173	0·7	9·7	0·00	...	9
10	29·755	36·7	34·5	43·4	31·3	84·8	26·4	S	183	1·3	7·7	2·40	0·111	10
11	29·919	37·5	35·1	44·0	34·3	92·0	25·6	WNW	135	1·7	0·7	7·70	...	11
12	30·127	37·0	34·6	45·4	28·1	94·4	21·0	W	115	1·0	3·7	5·20	0·003	12
13	30·265	41·8	38·8	46·6	37·6	68·5	31·9	SW	204	1·0	10·0	0·00	...	13
14	30·261	40·4	37·2	45·9	33·7	79·9	26·3	SSW	313	2·3	7·3	2·30	...	14
15	30·276	43·9	39·8	49·9	40·8	98·0	29·5	Var.	293	1·3	3·7	7·35	0·013	15
16	29·979	47·8	45·0	50·4	40·3	58·0	32·2	SW	525	4·7	10·0	0·00	0·039	16
17	29·877	50·7	46·3	55·5	47·0	92·0	41·1	WSW	519	4·0	6·7	3·85	...	17
18	29·499	52·4	50·1	53·8	50·0	65·1	46·6	SW	617	5·7	9·7	0·10	0·118	18
19	29·352	42·4	38·8	53·8	38·3	101·2	31·0	W	291	4·0	2·7	7·85	0·015	19
20	29·782	39·7	36·5	48·0	32·0	100·1	24·2	W	318	2·0	0·7	5·45	...	20
21	29·662	45·3	43·9	50·6	36·2	65·6	28·7	SSW	646	4·3	10·0	0·00	0·082	21
22	29·552	46·8	42·7	52·5	43·4	106·1	39·2	WSW	612	5·3	3·0	6·90	0·036	22
23	29·141	47·6	45·3	51·7	43·1	82·3	38·7	SW	698	6·7	9·7	1·25	0·078	23
24	29·487	45·2	40·6	50·8	41·8	104·4	37·4	W	393	5·0	5·0	6·55	0·014	24
25	29·428	48·9	46·5	54·9	41·4	87·9	40·2	WSW	487	4·0	6·7	0·75	0·088	25
26	29·797	43·3	38·3	48·7	41·1	98·7	35·6	WNW	280	4·0	3·3	6·85	0·051	26
27	29·667	43·9	43·2	49·7	37·7	54·0	31·8	S	441	2·7	10·0	0·00	0·341	27
28	29·264	49·0	47·4	51·0	46·2	72·7	41·2	SSW	376	3·7	8·0	0·50	0·372	28
Mean or Sum.	29·949	41·22	38·71	46·36	36·40	73·99	30·70	...	8421	2·64	6·92	72·80	1·384	Mean or Sum.

Weather.

1. Very fine; misty. 2. Overcast; foggy morning. 3. Overcast. 4. Occasional slight rain. 5. Slight rain at times. 6. Overcast. 7. Fine 4h–7h p.m., otherwise overcast. 8. Fine 8h–10h a.m., then cloudy. 9. Overcast. 10. Fine to cloudy; rain night. 11. Fine. 12. Very fine till afternoon. 13. Generally overcast. 14. Fine morning, then overcast. 15. Fine generally; hazy; rain 0½h a.m. 16. Overcast; squally. 17. Fine till evening, then overcast. 18. Overcast, squally; rain after 10h p.m. 19. Fine to very fine night; squally. 20. Fine morning and night. 21. Rainy morning; then squally. 22. Fine, squally. 23. Cloudy, squally; showers. 24. Fine to cloudy; squally morning. 25. Rain early morning; overcast to fine night. 26. Fine. 27. Frequent rain. 28. Rainy till afternoon, then fair.

MARCH, 1911.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·943	42·7	39·5	51·7	35·9	105·9	30·8	WSW	477	3·3	2·7	8·90	...	1
2	30·050	52·0	49·2	58·7	43·9	97·0	40·0	WSW	335	2·7	9·7	3·50	...	2
3	30·128	48·8	46·4	54·5	46·6	98·3	42·6	WSW	297	2·3	6·7	1·45	0·042	3
4	29·844	45·2	43·3	48·9	41·7	76·6	40·3	Var.	193	2·7	9·7	0·05	0·054	4
5	29·949	40·5	37·9	47·1	32·9	98·0	25·2	NW	104	0·7	3·3	4·35	...	5
6	29·709	39·8	38·5	43·4	35·1	60·1	30·2	WSW	210	1·0	9·7	0·00	0·031	6
7	29·940	40·8	38·8	47·5	38·8	90·9	31·4	NNE	119	1·7	7·0	1·30	0·005	7
8	29·839	39·5	37·9	45·6	31·0	71·7	24·0	SW	231	1·0	9·0	0·15	...	8
9	29·758	41·2	38·1	46·5	38·9	99·5	30·4	WNW	252	2·0	6·3	4·95	0·141	9
10	29·783	40·8	38·7	46·8	33·0	85·3	25·8	SSW	362	3·7	8·7	1·10	0·024	10
11	29·708	41·7	39·6	48·5	38·4	92·0	28·9	WNW	183	1·0	9·7	0·75	0·157	11
12	29·467	40·5	38·4	45·5	35·0	74·7	26·8	SW	348	2·3	10·0	0·00	0·431	12
13	29·327	37·2	33·6	43·6	33·0	86·0	30·1	NNW	446	3·3	6·0	5·55	0·112	13
14	29·473	38·0	33·8	43·2	34·1	90·6	30·2	NW	327	4·3	8·0	5·50	...	14
15	29·258	37·1	35·0	42·8	33·5	75·0	29·3	NW	282	2·7	9·7	0·50	0·045	15
16	29·405	38·3	36·1	46·4	36·2	92·6	31·2	NNE	85	1·0	9·3	3·05	0·016	16
17	29·555	37·7	35·6	47·0	30·4	91·7	23·0	ESE	284	1·3	5·3	4·40	...	17
18	29·597	40·1	37·7	44·4	36·2	64·3	32·9	ENE	333	3·7	10·0	0·00	...	18
19	29·635	38·6	37·5	40·2	38·2	46·2	37·7	ENE	263	2·7	10·0	0·00	...	19
20	29·544	44·8	41·7	55·1	38·1	105·6	36·7	NE	317	2·3	4·7	6·65	...	20
21	29·568	40·3	39·7	46·5	35·6	77·0	33·0	NE	207	1·3	10·0	0·15	0·068	21
22	29·704	45·7	44·2	58·8	39·0	106·8	39·0	NE	321	2·0	7·0	4·95	0·019	22
23	29·824	41·4	41·0	45·7	39·6	56·0	39·3	NE	327	2·3	10·0	0·00	0·290	23
24	29·803	40·1	37·4	46·8	37·1	91·7	31·1	ENE	346	2·3	6·0	2·10	...	24
25	29·884	37·2	33·4	41·5	33·3	94·2	27·2	NNE	516	4·3	4·7	7·65	0·021	25
26	29·814	37·0	33·1	42·8	33·5	91·1	30·3	NE	687	6·0	9·7	4·65	...	26
27	29·626	37·9	36·3	38·9	36·9	47·3	36·1	NNE	364	4·7	10·0	0·00	0·123	27
28	29·628	44·0	40·1	55·0	35·1	111·0	34·3	E	250	2·0	6·0	8·90	0·051	28
29	29·634	42·1	41·3	46·0	39·8	57·0	38·0	NE	263	2·0	10·0	0·00	...	29
30	29·465	42·0	41·7	45·1	38·5	53·3	38·6	NE	84	1·3	10·0	0·00	0·017	30
31	29·618	45·5	44·5	51·7	43·2	70·0	38·3	WSW	95	0·7	6·7	0·00	0·001	31
Mean or Sum.	29·693	41·24	39·03	47·30	36·85	82·50	32·67	...	8908	2·41	7·92	80·55	1·648	Mean or Sum.

Weather.

1. Fine. 2. Fine intervals. 3. Fair intervals. 4. Overcast. 5. Fine morning and night. 6. Light rain at times. 7. Overcast till afternoon, then fair. 8. Overcast. 9. Cloudy to fine; rain early; hail 2¼ʰ p.m. 10. Overcast after 11ʰ a.m.; rain night. 11. Generally overcast; slight rain till 10ʰ a.m. 12. Rainy after 1ʰ p.m.; snow after 11ʰ p.m. 13. Very fine morning, then cloudy; heavy snow squall 4¾ʰ p.m. 14. Fine. 15. Generally overcast; snow, sleet, and rain at times. 16. Sleet 8ʰ–9ʰ a.m., then fair; hail 8¾ʰ a.m. and 4ʰ p.m. 17. Fine till afternoon. 18. Overcast. 19. Overcast. 20. Fine. 21. Overcast; rain morning. 22. Very fine midday; rain evening. 23. Rain at times. 24. Overcast to fair. 25. Variable; snow squalls; squally. 26. Fine afternoon; squally. 27. Squally; occasional rain. 28. Fine. 29. Overcast. 30. Rain night. 31. Generally overcast.

APRIL, 1911.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·758	44·4	42·8	48·4	41·7	65·6	37·9	NE	40	1·0	10·0	0·00	...	1
2	29·738	42·9	42·3	45·9	42·1	55·2	41·9	NNW	125	0·7	10·0	0·00	0·361	2
3	29·939	37·3	34·0	45·9	36·3	105·8	31·5	NNE	282	2·7	7·0	3·35	0·018	3
4	29·987	35·8	33·2	43·7	30·3	98·2	26·2	N	395	3·3	7·0	5·70	0·014	4
5	29·957	31·5	27·4	37·4	27·3	103·6	24·3	NE	393	5·0	2·7	9·25	0·011	5
6	30·015	32·8	29·2	38·1	26·2	104·8	22·7	ENE	353	4·7	8·3	3·85	...	6
7	29·965	36·2	33·6	46·4	31·0	107·1	27·0	NE	291	2·0	8·7	5·80	0·004	7
8	30·076	41·9	38·5	49·5	30·2	109·4	23·3	NNE	295	3·0	8·7	1·65	...	8
9	30·103	43·1	41·0	47·4	39·9	64·5	37·0	N	291	1·7	9·7	0·00	0·012	9
10	29·877	39·8	36·6	45·8	36·8	94·3	32·9	N	460	4·0	7·7	1·15	0·014	10
11	30·036	41·3	37·9	48·5	38·3	87·5	34·7	NE	144	3·0	6·7	0·35	...	11
12	30·038	43·7	40·2	59·7	29·0	106·6	22·9	Calm	168	0·3	6·0	4·05	...	12
13	30·174	47·5	42·5	56·1	41·5	111·2	35·2	NE	106	1·3	3·7	11·50	...	13
14	30·066	52·4	47·0	63·9	39·0	114·4	34·2	W	162	1·0	2·3	11·35	...	14
15	29·898	48·1	43·9	62·6	37·3	119·1	30·9	WSW	392	2·0	4·0	11·05	...	15
16	29·714	49·6	44·7	57·6	40·9	122·9	37·0	WSW	196	2·3	4·3	6·70	...	16
17	29·599	48·7	44·7	58·9	39·7	111·3	34·1	SW	284	2·3	8·7	4·30	...	17
18	29·333	54·6	48·8	60·5	43·9	118·5	41·7	S	541	4·7	9·3	1·70	...	18
19	29·290	48·9	43·8	57·5	45·2	115·4	41·0	S	490	5·7	7·7	8·05	...	19
20	29·875	48·1	42·3	56·4	44·3	117·8	39·9	WSW	414	3·3	5·7	9·90	...	20
21	30·149	51·0	49·0	57·3	44·0	92·6	40·9	SSW	408	4·0	10·0	0·15	0·007	21
22	30·081	55·1	48·9	64·1	46·3	123·5	42·5	SSW	355	4·0	6·3	7·45	0·010	22
23	29·833	53·4	49·3	59·5	50·0	111·6	46·3	SW	382	4·3	9·0	3·30	...	23
24	29·825	51·4	46·5	62·0	42·0	116·9	38·8	WSW	287	2·3	4·7	10·00	...	24
25	29·627	51·4	47·6	57·6	45·3	107·9	42·8	SSW	425	3·0	9·7	1·10	...	25
26	29·581	49·1	43·8	57·8	47·2	126·4	42·7	W	434	4·0	3·7	9·70	0·042	26
27	29·211	50·0	48·1	57·0	42·2	117·3	41·2	SW	530	5·0	7·7	2·55	0·231	27
28	29·314	49·6	45·8	58·9	46·4	120·3	43·1	WSW	376	2·7	9·0	5·20	0·311	28
29	29·138	46·1	43·8	55·2	42·2	120·3	37·7	WSW	231	2·7	8·3	6·65	0·051	29
30	29·464	49·0	45·5	57·4	37·4	113·2	30·3	NNW	153	1·3	6·0	5·30	0·065	30
Mean or Sum.	29·789	45·82	42·09	53·90	39·46	106·11	35·42	...	9403	2·91	7·09	151·10	1·151	Mean or Sum.

Weather.

1. Overcast. 2. Continuous light rain till 7h p.m. 3. Overcast till noon, then fine. 4. Very fine till 11h a.m.; then cloudy, with snow showers. 5. Variable; snow squalls after noon. 6. Cloudy generally. 7. Cloudy till afternoon, then fine. 8. Overcast till noon, then fair. 9. Slight rain after 4h p.m. 10. Overcast to fair night; hail 0¼h p.m. 11. Overcast to very fine in evening. 12. Fine to cloudy; fog early. 13. Very fine till evening. 14. Very fine generally. 15. Very fine generally. 16. Fine. 17. Very fine afternoon, otherwise fair. 18. Cloudy. 19. Variable; squally. 20. Fine. 21. Slight rain till 10h a.m. 22. Very fine to overcast evening; rain 4h–5h p.m. 23. Cloudy. 24. Very fine generally. 25. Fair to overcast. 26. Very fine generally. 27. Rainy till 11h a.m., then fair. 28. Fine till afternoon; rain evening. 29. Fine; showers till noon; hail 10¾h a.m. 30. Fair; rain and hail afternoon.

MAY, 1911.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·773	52·3	47·1	60·6	42·5	125·2	34·8	WSW	369	1·7	6·3	11·35	...	1
2	29·612	49·9	46·9	55·4	48·1	99·0	44·2	SW	397	3·7	7·7	0·05	0·186	2
3	29·554	47·6	44·7	53·2	41·6	99·3	35·1	SW	411	4·7	8·3	0·65	0·189	3
4	29·678	50·1	44·9	59·8	41·1	123·4	36·2	WSW	184	2·0	4·0	9·80	...	4
5	29·875	52·2	47·4	61·2	40·3	123·7	36·1	WNW	133	1·0	7·0	2·70	...	5
6	30·053	53·2	47·0	63·5	39·6	119·7	32·6	Var.	137	1·0	3·7	11·20	...	6
7	29·991	54·6	48·4	62·7	44·9	121·4	39·7	S	91	1·0	6·7	1·40	...	7
8	29·923	54·8	47·1	65·1	45·0	106·6	38·9	SSE	159	1·0	7·0	7·25	...	8
9	29·797	56·8	51·5	67·5	40·0	130·1	33·7	NE	286	2·3	2·3	12·50	...	9
10	29·665	57·2	53·4	72·1	46·7	124·6	45·7	NE	249	2·0	5·0	10·30	...	10
11	29·602	56·8	53·5	73·5	48·8	130·3	46·0	NE	196	1·0	9·0	4·50	...	11
12	29·547	54·3	52·5	65·7	48·0	114·4	43·4	NNE	111	1·0	8·7	3·95	...	12
13	29·445	53·2	52·7	69·2	49·6	123·6	46·0	NE	42	0·7	8·7	3·65	0·748	13
14	29·383	54·7	53·4	62·5	50·1	80·3	45·5	SW	137	1·0	7·3	0·05	0·080	14
15	29·487	55·5	52·6	63·0	51·0	106·9	48·6	SW	40	1·0	7·0	0·75	...	15
16	29·638	60·6	55·7	71·2	45·3	129·8	42·6	N	124	1·0	6·7	6·75	...	16
17	29·702	61·7	56·6	70·5	50·0	125·8	46·0	NE	80	1·0	4·0	10·00	...	17
18	29·836	51·6	50·2	63·5	48·5	96·2	45·0	NE	119	1·0	10·0	0·90	...	18
19	29·941	50·6	47·0	57·2	46·0	114·4	40·5	N	214	1·0	9·3	3·45	...	19
20	29·984	46·9	42·8	50·5	46·6	66·3	45·2	NNE	151	1·7	10·0	0·00	...	20
21	29·940	47·6	43·0	56·3	44·1	120·1	42·8	ENE	65	1·0	6·3	5·90	...	21
22	29·794	56·3	49·9	69·7	39·8	123·8	34·0	W	189	1·0	0·7	11·65	...	22
23	29·783	55·8	51·8	63·1	46·8	121·3	41·7	WSW	377	2·7	6·7	6·75	...	23
24	29·849	58·3	55·9	65·6	54·0	124·1	50·8	SW	150	2·7	6·3	2·90	...	24
25	29·758	60·8	54·8	71·1	52·0	132·0	46·3	S	139	1·0	5·7	9·00	0·002	25
26	29·693	59·0	57·9	66·9	52·0	127·7	46·2	NE	129	1·7	8·7	0·85	0·816	26
27	29·862	59·2	56·5	72·5	55·0	122·4	54·7	NNE	109	1·0	8·0	3·65	...	27
28	30·006	63·4	56·8	73·5	48·0	130·6	42·9	NE	282	2·0	0·7	13·95	...	28
29	29·922	64·8	58·7	76·5	51·9	132·3	49·3	NE	250	3·0	0·3	14·90	0·002	29
30	29·797	63·5	57·9	74·8	48·5	132·8	43·7	NNE	158	2·0	7·0	9·55	0·158	30
31	29·734	61·3	58·6	73·6	55·1	124·8	54·9	N	122	1·0	8·7	5·30	0·025	31
Mean or Sum.	29·762	55·63	51·52	65·53	47·13	117·84	43·00	...	5600	1·61	6·38	185·60	2·206	Mean or Sum.

Weather.

1. Very fine generally till evening. 2. Overcast; rainy and squally afternoon. 3. Cloudy; rain afternoon; squally. 4. Very fine till afternoon. 5. Cloudy. 6. Very fine to fine. 7. Cloudy. 8. Overcast to very fine. 9. Very fine generally. 10. Very fine generally; lightning $8\frac{1}{2}^h$ p.m. 11. Fair; thunder and lightning $3\frac{1}{2}^h$–6^h p.m. 12. Overcast till afternoon. 13. Fair; rain at times; thunderstorms $8\frac{1}{2}^h$ a.m. and $5\frac{1}{2}^h$ p.m. 14. Rainy till 2^h p.m.; fine night. 15. Overcast generally. 16. Fine till afternoon. 17. Fine. 18. Generally overcast. 19. Generally overcast after 10^h a.m. 20. Fine snow-flakes $10\frac{1}{2}^h$ a.m. 21. Very fine after 1^h p.m. 22. Very fine; thick fog early. 23. Fine. 24. Cloudy till afternoon, then fine. 25. Fine; lightning night. 26. Cloudy; thunderstorm 2^h a.m.; rain later. 27. Overcast till noon. 28. Very fine. 29. Very fine. 30. Very fine till 3^h p.m.; thunderstorm 9^h–$10\frac{1}{2}^h$ p.m. 31. Fine midday; slight thunderstorm 5^h–6^h p.m.

JUNE, 1911.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·883	69·7	61·9	78·1	54·9	132·6	52·2	E	191	1·7	0·0	14·10	...	1
2	29·861	65·0	57·9	76·2	49·6	130·4	46·4	E N E	115	1·3	0·0	14·80	...	2
3	29·732	63·4	59·3	74·2	51·7	126·7	48·3	Var.	56	0·7	8·0	4·95	...	3
4	29·907	67·2	63·9	78·6	54·0	133·1	50·0	N E	55	0·7	6·3	7·00	...	4
5	30·078	69·9	63·6	81·5	58·7	129·0	54·2	N	153	1·0	0·0	12·60	...	5
6	30·215	64·4	59·9	75·6	54·6	125·0	49·8	N N E	283	2·0	0·3	13·55	...	6
7	30·219	59·9	53·6	70·7	48·2	128·0	45·1	N E	173	2·3	2·3	12·00	...	7
8	30·005	68·1	59·0	77·5	46·8	131·7	41·2	E	125	1·3	0·0	15·30	...	8
9	29·717	61·0	55·6	72·8	53·7	135·0	47·3	N N E	226	2·7	5·7	7·65	...	9
10	29·794	54·5	47·5	61·9	40·0	128·2	32·9	E N E	67	1·3	5·0	11·10	...	10
11	29·774	58·3	50·9	66·3	41·2	121·1	33·4	W S W	87	1·0	6·7	7·45	...	11
12	29·662	61·2	54·3	69·0	51·1	124·8	46·9	W	194	1·0	4·7	8·45	...	12
13	29·675	54·1	46·7	63·4	48·4	129·2	43·2	N N E	203	2·0	5·0	9·35	...	13
14	29·831	54·3	47·7	64·1	39·5	123·8	31·0	N N E	110	2·3	3·3	11·85	...	14
15	29·963	56·4	48·5	65·6	40·0	127·3	32·8	N E	135	1·0	4·0	13·20	...	15
16	29·805	58·3	52·6	66·8	50·0	110·4	47·1	E S E	214	1·3	9·0	0·05	0·100	16
17	29·485	60·1	56·2	67·0	55·6	117·4	52·5	S S W	363	2·7	9·3	2·50	...	17
18	29·353	57·8	55·3	69·5	55·4	130·0	51·9	S S W	334	3·3	7·3	7·45	0·108	18
19	29·401	55·9	54·0	61·7	54·0	106·4	50·0	S S W	282	2·3	8·7	1·25	0·237	19
20	29·679	57·5	53·0	64·6	51·4	131·8	48·1	W S W	295	3·0	7·0	5·25	...	20
21	29·824	58·4	53·3	65·9	55·0	129·3	50·8	W S W	406	2·7	8·7	1·35	...	21
22	29·646	58·1	55·8	64·4	54·0	114·0	51·4	S S W	324	5·3	10·0	1·00	...	22
23	29·492	57·1	54·3	64·4	53·9	131·5	49·9	S S W	167	1·7	8·7	2·00	0·122	23
24	29·296	55·7	50·7	64·2	51·7	128·4	52·2	W S W	365	4·3	7·3	5·15	0·028	24
25	29·476	51·7	49·9	55·3	50·5	79·1	50·0	W S W	301	3·0	10·0	0·00	0·353	25
26	29·728	50·8	46·7	56·5	49·3	119·1	48·8	W N W	215	3·0	9·0	2·60	0·017	26
27	29·972	57·0	51·6	69·6	49·0	127·2	47·7	W	254	2·0	5·7	8·55	...	27
28	30·040	61·5	56·9	70·8	53·9	131·7	48·6	W S W	399	3·3	8·3	7·30	...	28
29	29·889	59·2	55·2	65·6	56·3	109·9	56·2	S W	330	3·7	10·0	0·60	0·198	29
30	29·547	56·9	54·8	61·3	52·2	95·7	51·6	W S W	190	2·3	9·7	0·10	0·031	30
Mean or Sum.	29·765	59·45	54·35	68·10	50·82	122·93	47·05	...	6612	2·21	6·00	208·50	1·194	Mean or Sum.

Weather.

1. Very fine. 2. Very fine. 3. Fair; thunder afternoon and evening. 4. Fine; lightning and distant thunder $9\frac{1}{2}^h$–$10\frac{1}{2}^h$ p.m. 5. Very fine. 6. Very fine. 7. Very fine after 9^h a.m. 8. Very fine. 9. Very fine till noon. 10. Fine to very fine. 11. Fine to cloudy. 12. Fine to cloudy. 13. Very fine to fine till noon. 14. Very fine generally to fair. 15. Very fine till early evening. 16. Rain after 10^h p.m. 17. Changeable. 18. Rainy till $9\frac{1}{2}^h$ a.m., then fine. 19. Frequent rain. 20. Overcast till afternoon, then fine. 21. Very cloudy. 22. Generally overcast; squally; shower 7^h a.m. 23. Fair till 10^h a.m., then light rain at times; heavy shower $4\frac{1}{2}^h$ p.m. 24. Variable. 25. Rainy. 26. Overcast after 10^h a.m.; slight showers. 27. Fine generally. 28. Cloudy to fine. 29. Rain after 9^h p.m. 30. Overcast.

JULY, 1911.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·489	57·1	52·6	64·9	52·4	127·9	52·2	W	244	1·3	9·3	3·15	0·082	1
2	29·739	56·3	48·7	63·9	51·3	133·8	49·0	NW	183	2·3	3·3	10·75	0·030	2
3	30·119	58·9	50·6	68·7	46·9	131·1	42·9	WNW	107	1·3	2·7	12·60	...	3
4	30·225	60·6	53·3	69·0	48·2	120·9	44·9	WSW	129	1·0	9·3	2·40	...	4
5	30·167	69·5	62·3	80·3	56·0	134·5	54·1	W	50	0·7	4·3	9·55	...	5
6	30·036	72·8	65·1	83·8	62·0	138·9	58·5	W	73	0·7	3·0	11·90	...	6
7	30·038	74·4	64·2	84·9	61·1	133·5	56·0	NE	65	1·0	0·3	13·90	...	7
8	30·070	74·3	63·9	87·7	60·1	136·6	54·7	NNW	179	1·0	0·7	14·35	...	8
9	30·238	61·8	56·0	75·0	55·1	129·9	54·9	NE	194	1·7	4·7	8·80	...	9
10	30·311	60·0	52·9	72·3	45·8	129·5	39·9	NE	218	2·7	3·0	11·90	...	10
11	30·305	66·5	56·0	80·7	46·7	136·7	38·8	NE	206	1·7	0·0	13·25	...	11
12	30·256	71·0	60·7	83·9	50·2	138·8	43·8	NE	217	1·7	0·0	15·50	...	12
13	30·187	72·4	59·8	83·5	48·3	137·0	40·3	NE	208	2·7	0·0	15·05	...	13
14	30·115	71·1	60·4	84·3	53·1	136·1	48·0	NNE	149	0·7	0·3	14·45	...	14
15	30·033	61·0	56·9	73·1	56·7	122·3	53·1	NE	156	2·3	6·3	2·00	...	15
16	29·828	63·9	56·6	76·2	49·4	136·3	41·8	WNW	230	2·3	6·3	10·95	...	16
17	29·631	64·6	58·0	73·9	57·2	128·5	51·9	WSW	325	1·7	7·0	6·60	...	17
18	29·559	64·1	54·9	73·1	60·3	136·2	58·1	W	271	3·3	6·0	9·95	...	18
19	29·819	64·8	57·7	73·1	54·8	132·2	48·8	WSW	251	2·0	6·0	6·35	...	19
20	29·956	72·0	61·9	82·1	59·6	137·3	55·2	SSW	276	2·3	6·7	5·20	...	20
21	29·975	77·6	63·6	89·9	59·0	141·6	52·1	SW	233	2·7	1·3	13·45	...	21
22	29·985	71·7	63·5	85·3	57·7	141·9	57·5	W	164	1·3	5·3	13·45	...	22
23	29·980	66·0	57·9	78·6	57·0	131·1	52·1	NE	115	1·3	6·7	3·20	...	23
24	29·843	69·9	60·0	78·8	55·0	135·2	48·7	SSE	150	1·0	4·0	6·85	...	24
25	29·668	69·9	60·6	81·8	60·7	136·7	57·8	WSW	99	1·0	0·3	12·50	...	25
26	29·645	66·8	60·2	79·7	55·9	139·3	51·2	W	196	0·7	5·7	6·30	...	26
27	29·737	72·1	62·4	82·9	58·7	142·4	54·0	SSW	137	2·0	2·3	13·30	...	27
28	29·776	76·8	66·2	88·9	61·9	144·6	58·4	Var.	92	0·7	2·0	11·40	...	28
29	29·702	75·8	66·2	90·5	63·9	141·2	59·9	SE	257	2·0	4·7	9·80	0·310	29
30	29·711	68·5	60·5	75·8	61·2	137·8	58·7	SSW	227	3·3	5·7	9·20	...	30
31	29·770	71·0	61·1	80·2	55·1	140·9	49·8	S	220	1·7	3·0	12·40	...	31
Mean or Sum.	29·933	67·85	59·18	78·93	55·53	135·18	51·20	...	5621	1·68	3·88	310·45	0·422	Mean or Sum.

Weather.

1. Cloudy; rain 8h a.m. 2. Fine. 3. Very fine generally. 4. Generally cloudy. 5. Very fine to fine. 6. Very fine generally. 7. Very fine; hazy. 8. Very fine and warm. 9. Cloudy till 11h a.m., then fine. 10. Very fine after 8½h a.m. 11. Very fine after 7h a.m. 12. Very fine. 13. Very fine. 14. Very fine. 15. Fine 7½h a.m. to 9½h a.m., otherwise cloudy. 16. Fine generally. 17. Cloudy to fine. 18. Fine. 19. Fair to fine. 20. Cloudy to fine. 21. Very fine and hot. 22. Fine to very fine. 23. Fine 10¾h a.m. to 0½h p.m., otherwise cloudy. 24. Fine till noon, then cloudy. 25. Very fine after 7h a.m. 26. Very fine after 11h a.m. 27. Very fine. 28. Very fine; lightning and distant thunder in evening. 29. Very fine to fine till 4h p.m.; hot and close; thunderstorm 8h p.m. 30. Fine after 11h a.m. 31. Fine.

AUGUST, 1911.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
	Air.	Evap.	Max.	Min.										
	Inches.	°	°	°	°	°			Miles.				Inches.	
1	29·756	70·5	61·0	78·2	60·6	139·3	54·6	SSW	160	2·7	6·0	5·85	...	1
2	29·926	66·0	59·2	77·3	55·1	141·4	48·1	SSW	301	1·3	7·3	9·15	0·015	2
3	29·796	66·6	60·4	75·2	59·7	139·3	56·0	SSW	238	3·3	7·0	7·15	0·041	3
4	29·789	65·8	58·6	75·1	56·8	142·3	51·1	SW	291	2·3	7·7	7·95	...	4
5	29·590	63·8	59·2	72·9	59·4	120·1	59·6	SSW	249	3·0	10·0	0·75	0·345	5
6	29·740	63·6	58·7	70·6	54·0	126·8	50·2	SW	300	3·0	6·0	3·45	...	6
7	29·963	67·9	61·4	77·8	60·3	140·2	57·0	WSW	105	1·3	6·3	9·20	...	7
8	29·961	74·0	62·9	85·7	55·8	142·5	51·4	S	94	1·0	0·0	13·65	...	8
9	29·822	80·2	67·3	94·7	59·3	153·7	53·9	SSW	235	1·0	0·3	12·75	...	9
10	29·912	70·8	60·5	82·0	60·3	136·7	57·3	NNE	310	3·3	3·0	12·80	...	10
11	29·872	64·1	60·9	72·0	60·2	120·7	57·5	NE	255	2·7	8·7	2·50	...	11
12	29·789	72·7	63·2	90·5	59·2	140·0	56·6	ENE	186	3·0	6·0	8·50	...	12
13	29·887	77·4	64·5	90·0	63·3	143·7	55·6	NE	188	1·0	2·7	9·55	...	13
14	29·948	72·9	63·1	86·8	58·7	143·2	53·8	NE	195	1·7	0·3	13·60	...	14
15	29·922	65·9	57·2	78·0	55·7	136·9	51·4	NE	110	1·7	1·7	12·10	...	15
16	29·936	64·5	54·9	76·8	50·5	133·3	44·4	NNE	67	1·3	0·0	13·35	...	16
17	29·913	67·9	59·8	82·7	48·8	139·2	42·9	SW	160	1·0	4·3	8·25	...	17
18	29·749	69·8	64·1	81·7	59·4	144·2	53·2	W	135	2·0	7·3	10·20	...	18
19	29·642	65·8	59·6	79·0	54·9	133·7	50·4	NNE	75	1·0	7·7	5·65	...	19
20	29·481	69·7	61·9	82·9	59·6	139·4	51·3	E	104	1·0	4·7	8·25	0·065	20
21	29·359	63·2	61·7	70·4	61·4	108·3	60·5	Var.	108	1·0	10·0	1·05	0·213	21
22	29·516	60·2	58·1	65·2	58·3	78·1	54·3	NE	132	1·0	9·3	0·00	0·020	22
23	29·650	61·0	56·3	69·6	54·7	133·2	50·1	NE	131	0·7	3·3	6·55	...	23
24	29·557	62·7	59·2	68·0	54·6	122·9	48·9	S	195	2·0	8·7	3·60	0·045	24
25	29·642	62·8	57·3	71·6	55·9	134·8	49·8	SW	243	1·3	4·7	7·90	0·017	25
26	29·781	63·5	58·9	71·6	54·5	127·7	48·1	SW	352	3·0	8·3	3·45	...	26
27	29·733	66·6	63·6	73·9	63·1	124·4	60·3	SSW	315	3·7	10·0	2·15	0·006	27
28	29·696	60·8	59·6	67·4	61·1	82·0	57·0	SSW	229	1·0	9·3	0·10	0·154	28
29	29·826	62·8	56·5	71·9	54·5	135·5	49·3	WSW	206	3·0	6·3	9·95	...	29
30	29·982	58·7	54·9	69·6	54·0	135·2	50·0	Calm	80	0·3	6·7	5·70	0·106	30
31	29·994	61·1	54·7	72·7	47·0	129·0	41·8	SW	207	1·3	2·7	9·40	...	31
Mean or Sum.	29·778	66·56	59·97	76·83	57·12	131·22	52·46	...	5956	1·84	5·69	224·50	1·027	Mean or Sum.

Weather.

1. Fair to fine. 2. Fine till afternoon. 3. Overcast till noon; rain 9½h a.m. 4. Fine generally till afternoon. 5. Rain after 4h p.m. 6. Fair intervals. 7. Cloudy to very fine. 8. Very fine. 9. Very fine and hot. 10. Very fine generally. 11. Overcast to fair; thunder 5h–6h p.m. 12. Fine; warm. 13. Very fine generally; warm. 14. Very fine. 15. Very fine. 16. Very fine. 17. Very fine after 8h a.m. 18. Fine. 19. Very fine 9½h a.m. to 2h p.m. 20. Very fine till 2h p.m.; thunderstorm 8½h p.m. 21. Cloudy; rain midday; thunder shower 5½h p.m.; lightning 10h p.m. 22. Overcast; rain 3h p.m. 23. Fair to fine. 24. Cloudy; showers midday. 25. Fair to very fine; slight thunderstorm 0½h p.m. 26. Fair. 27. Fine intervals afternoon. 28. Rainy till 2h p.m. 29. Fine generally. 30. Fine 9h a.m.–2h p.m.; thunder and lightning 2h–4h p.m.; heavy rain 4h p.m. 31. Very fine to fine.

SEPTEMBER, 1911.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·903	65·0	56·4	77·5	50·1	132·0	43·8	S W	162	1·7	0·0	12·85	...	1
2	29·859	71·8	61·2	85·8	50·8	138·2	44·9	S S W	141	1·0	0·0	11·95	...	2
3	30·056	64·7	58·1	75·2	55·0	130·0	48·5	Calm	65	0·3	3·3	8·60	...	3
4	30·008	63·9	58·1	74·6	50·7	117·2	46·1	S S E	140	0·7	5·7	5·40	0·022	4
5	30·013	64·5	57·8	77·9	56·1	127·5	47·9	N N W	55	0·7	4·0	9·60	...	5
6	30·016	67·9	58·4	84·7	50·1	135·6	43·1	Calm	58	0·3	0·0	11·90	...	6
7	29·931	71·1	60·2	89·2	50·1	138·0	43·0	Calm	42	0·3	0·0	11·65	...	7
8	29·756	74·9	61·8	92·1	51·6	141·4	44·0	S S W	256	0·7	0·3	10·95	...	8
9	29·814	60·7	56·5	75·2	57·8	113·1	54·5	N E	164	2·7	10·0	0·45	...	9
10	29·894	63·1	55·4	74·6	47·1	126·4	41·5	E	190	1·3	0·0	11·45	...	10
11	29·755	70·3	69·2	82·7	55·0	136·0	46·0	S	95	1·3	3·0	10·25	...	11
12	29·681	68·8	60·9	77·8	58·9	112·0	52·9	Var.	160	0·7	8·7	2·70	...	12
13	29·776	56·3	54·5	71·7	52·9	78·1	52·9	N N W	166	1·3	10·0	0·00	0·364	13
14	29·897	55·2	49·7	63·5	50·9	119·4	49·9	N	207	2·0	6·0	5·60	...	14
15	29·996	52·3	47·6	60·6	43·8	121·9	38·0	N N E	227	2·3	1·7	8·85	...	15
16	30·076	53·4	47·6	63·9	40·3	127·2	34·8	N N E	84	2·7	1·0	10·50	...	16
17	30·123	50·9	47·7	60·7	43·2	104·7	37·9	N W	121	0·7	6·3	3·05	...	17
18	30·080	55·3	49·8	67·9	42·1	122·0	35·9	W S W	195	2·0	0·0	10·80	...	18
19	29·735	57·9	52·8	67·3	47·0	128·2	38·7	S S W	309	2·0	5·0	6·85	0·250	19
20	29·227	56·5	54·1	62·2	52·2	106·4	50·9	S S W	154	3·0	8·0	1·50	0·312	20
21	29·283	50·4	46·6	59·8	43·0	127·8	39·5	W N W	60	1·0	2·0	8·30	0·002	21
22	29·609	49·8	45·1	61·4	37·3	111·2	32·6	Calm	124	0·0	2·0	8·55	...	22
23	29·568	56·6	52·5	63·5	45·8	114·2	38·1	S S E	213	2·3	7·3	2·85	0·054	23
24	29·685	56·3	52·1	64·7	53·2	126·0	47·5	W N W	109	1·3	3·3	8·75	0·068	24
25	29·809	58·5	53·2	67·4	44·1	126·7	37·9	S	326	3·0	5·7	7·90	...	25
26	29·903	59·2	54·1	67·4	51·3	125·0	44·8	W S W	209	1·7	0·7	9·60	...	26
27	29·946	61·4	55·9	67·8	52·2	122·0	45·1	S W	226	2·3	5·0	5·90	0·120	27
28	29·986	52·5	48·1	62·1	49·2	105·1	41·4	W	223	1·7	5·0	2·95	0·071	28
29	30·016	50·7	45·6	58·8	40·0	123·0	35·1	W	357	2·3	6·3	8·20	0·015	29
30	29·647	50·0	45·7	58·8	46·2	113·0	42·2	N W	483	5·0	6·0	4·70	0·161	30
Mean or Sum.	29·835	59·66	53·59	70·56	48·93	121·64	43·31	...	5321	1·61	3·88	222·60	1·439	Mean or Sum.

Weather.

1. Very fine. 2. Very fine. 3. Fine. 4. Cloudy to fine; rain midday. 5. Fine. 6. Very fine; warm. 7. Very fine; hot. 8. Very fine and hot. 9. Overcast. 10. Very fine. 11. Very fine generally. 12. Cloudy to fair; close; lightning after 8^h p.m. 13. Frequent rain 1^h p.m.-6½^h p.m. 14. Fine to fair. 15. Fine. 16. Fine generally. 17. Cloudy to fine night; fog early. 18. Very fine. 19. Fine till 1^h p.m.; rain after 4^h p.m. 20. Generally overcast; rain midday; slight thunderstorm 6^h p.m. 21. Fine; lightning at 7½^h p.m. 22. Fine. 23. Fine till 11^h a.m.; light rain at times after 4½^h p.m. 24. Fair to fine. 25. Fine to overcast and squally night. 26. Very fine generally. 27. Fine till 2^h p.m., then overcast; rain after 9^h p.m. 28. Cloudy to fine night. 29. Very fine to overcast evening. 30. Cloudy till evening, then fine; squally; rain early.

OCTOBER, 1911.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	30·053	44·5	39·4	51·7	40·0	110·5	33·9	N N W	170	3·3	0·7	9·25	...	1
2	29·816	45·8	42·2	53·3	35·0	110·4	29·1	W N W	136	1·0	8·7	2·75	0·011	2
3	29·663	47·5	44·5	56·9	42·8	113·9	41·2	N N E	286	3·0	4·7	8·55	0·039	3
4	29·714	46·2	44·5	50·9	41·0	67·2	35·2	N	287	2·3	9·3	0·15	0·413	4
5	29·826	51·4	49·0	56·6	47·1	83·7	43·2	N N E	238	3·3	8·7	1·05	0·086	5
6	29·867	51·6	48·9	59·5	48·3	109·0	43·0	E N E	165	1·0	2·7	7·90	0·087	6
7	29·716	50·7	49·4	53·3	45·8	59·3	42·2	Var.	109	1·3	10·0	0·00	0·028	7
8	29·872	50·2	46·8	62·2	39·0	111·4	33·3	N N E	252	0·7	2·7	7·55	...	8
9	30·075	47·9	43·8	54·5	44·9	114·1	40·3	N N E	204	3·0	3·3	5·25	...	9
10	30·306	46·4	43·7	57·3	37·8	117·8	32·4	N E	118	1·3	1·7	7·70	...	10
11	30·188	50·1	47·5	57·6	42·3	111·4	35·9	E N E	102	1·3	5·7	5·45	...	11
12	29·910	48·3	46·9	62·3	38·3	101·7	34·1	N N E	35	1·0	4·3	6·20	...	12
13	29·759	53·0	52·0	62·9	42·0	98·9	39·3	Calm	59	0·3	5·7	2·45	0·359	13
14	29·814	55·3	54·5	58·8	54·0	95·1	51·8	E N E	157	2·0	10·0	0·10	0·001	14
15	30·022	53·6	51·4	56·6	52·7	72·0	51·8	E N E	234	1·7	10·0	0·00	0·002	15
16	29·950	50·9	49·5	53·3	50·7	57·8	50·1	E N E	239	3·0	10·0	0·00	0·002	16
17	29·875	52·3	50·4	60·5	49·8	103·2	43·2	E N E	121	2·7	5·3	5·30	...	17
18	29·861	47·2	47·1	58·9	43·0	94·2	41·7	N N E	78	1·0	9·3	3·00	0·005	18
19	29·719	56·7	55·3	62·8	46·6	94·2	45·0	E S E	116	1·0	9·7	0·30	0·085	19
20	29·566	57·2	56·2	60·4	54·0	100·5	46·9	S	310	1·7	8·0	1·20	0·148	20
21	29·221	54·9	53·0	59·9	52·5	107·3	47·8	S S E	346	3·0	7·0	2·10	0·121	21
22	28·829	53·6	50·9	57·8	50·3	106·9	46·0	S S W	447	5·0	7·7	2·10	0·314	22
23	29·388	52·8	49·3	56·6	49·2	101·5	45·5	W S W	309	3·3	5·7	3·75	...	23
24	29·184	51·2	49·9	56·3	47·3	72·8	42·9	S	226	2·0	9·3	0·05	0·273	24
25	29·088	45·2	42·7	52·7	41·9	106·4	34·5	W S W	132	1·3	3·3	6·40	...	25
26	28·906	44·4	42·9	53·6	37·7	96·0	29·9	S	327	2·7	7·7	1·95	0·130	26
27	28·940	43·6	41·8	48·2	38·7	64·4	31·0	N E	238	2·0	9·3	0·00	...	27
28	29·607	41·7	40·1	49·8	36·7	99·6	31·7	N N E	114	1·7	4·7	3·85	...	28
29	29·942	39·9	38·5	46·9	29·0	84·2	24·0	S S W	492	2·0	4·0	1·55	0·237	29
30	29·594	51·3	49·0	56·9	44·2	63·3	38·4	S W	389	5·3	6·7	0·05	0·116	30
31	29·803	45·8	43·0	53·2	40·1	99·6	33·3	S W	320	2·7	0·3	8·15	0·002	31
Mean or Sum.	29·680	49·39	47·23	56·20	43·96	94·46	39·31	...	6756	2·16	6·33	104·10	2·459	Mean or Sum.

Weather.

1. Very fine generally. 2. Cloudy to overcast. 3. Fine to rain night. 4. Rain afternoon and after 7^h p.m. 5. Overcast; rain 3^h–4^h p.m. 6. Fine; rain early morning. 7. Overcast; rain 7^h p.m. 8. Fine to fair. 9. Cloudy afternoon. 10. Fine. 11. Fine after 9^h a.m. 12. Fine; foggy early. 13. Fine to rainy; lightning and thunder 5^h–6^h a.m. 14. Overcast. 15. Overcast. 16. Overcast. 17. Overcast till $10\frac{1}{2}^h$ a.m., then fine. 18. Fine after noon; thick fog early. 19. Showers after noon. 20. Cloudy; rain forenoon and evening. 21. Rain midday; fine after 2^h p.m. 22. Rainy till 10^h a.m., then fair and squally. 23. Fine intervals. 24. Rain at times. 25. Fine generally. 26. Rain $9\frac{1}{2}^h$ a.m. to 2^h p.m.; fine afternoon; lightning 10^h p.m. 27. Overcast. 28. Fine to cloudy. 29. Fine till early afternoon; rain after 5^h p.m. 30. Rain afternoon; fine night; squally. 31. Very fine.

NOVEMBER, 1911.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·923	46·4	43·3	55·4	39·7	104·6	32·7	W S W	279	1·3	3·3	7·10	...	1
2	29·734	49·8	47·4	53·2	43·7	69·2	35·0	S S W	246	3·7	9·7	0·00	0·166	2
3	29·671	48·5	46·2	53·3	39·8	96·3	31·2	S	466	3·7	8·7	1·70	0·022	3
4	29·574	49·9	47·7	54·4	47·5	89·0	40·8	S W	550	2·7	6·7	1·50	0·031	4
5	29·314	49·7	44·5	58·0	44·6	102·2	40·1	W S W	568	5·3	0·7	6·00	0·084	5
6	29·582	44·2	40·5	51·7	40·0	97·9	36·1	S W	354	4·3	2·0	7·05	...	6
7	29·613	47·7	45·1	53·0	38·3	100·7	31·1	S S W	417	3·0	9·7	4·65	0·287	7
8	29·367	44·6	41·6	52·5	41·3	60·2	37·4	S S W	256	3·0	9·7	0·00	0·093	8
9	29·261	41·7	39·3	48·7	37·4	99·8	31·0	S	181	1·7	1·3	5·35	0·034	9
10	29·403	39·1	38·2	42·7	37·8	47·9	30·7	W	126	1·0	7·0	0·00	...	10
11	29·498	39·3	38·0	44·6	32·4	63·2	26·1	E S E	258	1·3	6·0	0·90	0·338	11
12	29·095	49·0	46·5	55·7	43·0	98·7	41·4	S W	600	4·7	5·3	2·50	0·312	12
13	29·721	46·4	44·1	50·7	43·0	105·1	39·8	W S W	282	3·7	7·0	0·90	0·268	13
14	30·002	50·2	48·3	54·6	40·4	72·2	33·4	S S E	361	3·0	10·0	0·10	...	14
15	29·465	49·1	45·9	52·6	46·1	61·0	43·8	S	527	3·3	10·0	0·30	0·072	15
16	29·304	51·5	48·9	55·5	48·4	87·3	45·6	S S W	409	4·7	9·7	0·85	0·018	16
17	28·955	49·9	46·8	52·5	46·0	91·9	41·6	S S W	294	4·0	8·0	3·40	0·468	17
18	28·590	42·9	41·5	48·6	41·2	50·9	39·8	Var.	382	2·0	9·7	0·00	0·009	18
19	28·704	41·2	38·7	44·4	36·9	52·8	33·9	W	374	4·7	9·0	0·00	0·103	19
20	29·250	43·1	40·9	47·6	40·3	74·8	35·0	N N W	165	1·7	5·7	1·25	0·022	20
21	29·325	35·2	32·4	41·9	31·6	76·6	25·9	N W	169	1·7	2·3	4·25	...	21
22	29·281	37·2	35·4	42·0	28·1	63·6	24·0	N N E	259	1·3	9·7	1·05	...	22
23	29·511	39·7	37·4	42·0	29·8	55·2	25·4	N E	423	4·3	9·7	0·00	0·002	23
24	29·683	39·9	36·8	43·2	39·0	92·4	37·0	N E	388	4·0	8·7	3·65	...	24
25	29·778	37·7	35·0	42·5	34·6	66·3	28·8	N E	214	2·0	6·3	1·40	...	25
26	29·719	35·4	33·8	41·7	33·0	87·6	27·9	N N E	133	2·3	5·7	1·35	0·021	26
27	29·639	33·9	33·0	37·5	32·7	66·2	28·4	S	163	1·3	7·0	0·75	0·016	27
28	29·770	42·1	41·2	47·1	32·2	48·8	28·0	S S E	187	1·0	10·0	0·00	0·064	28
29	30·116	38·2	37·9	50·7	34·7	82·0	28·6	S W	60	0·7	3·3	4·30	0·003	29
30	30·075	43·0	42·3	45·4	28·8	49·2	25·1	S S E	203	1·3	10·0	0·00	...	30
Mean or Sum.	29·497	43·55	41·29	48·79	38·41	77·12	33·52	...	9294	2·76	7·06	60·30	2·433	Mean or Sum.

Weather.

1. Very fine generally till evening. 2. Rain afternoon. 3. Fine till 11^h a.m. 4. Overcast after 10^h a.m. 5. Fine generally; squally. 6. Fine. 7. Variable; heavy rain after 11^h p.m. 8. Overcast. 9. Cloudy to fine. 10. Overcast till evening. 11. Fine to overcast; steady rain after 8½^h p.m. 12. Showery; squally afternoon. 13. Cloudy generally, with rain early. 14. Overcast. 15. Overcast to fair; rain at times. 16. Overcast to fair. 17. Variable, occasional rain after 3^h p.m. 18. Overcast. 19. Light rain after 11^h a.m. 20. Fine midday, otherwise overcast. 21. Fine to very fine, but hazy. 22. Fine intervals to overcast. 23. Overcast. 24. Fine midday, otherwise overcast. 25. Overcast to very fine evening. 26. Fine generally till afternoon, then light rain, sleet or snow. 27. Cloudy; light snow till 9½^h a.m. 28. Showery. 29. Fog early and very dense in evening, otherwise very fine. 30. Overcast.

DECEMBER, 1911.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·898	45·0	44·2	47·1	43·6	49·0	40·8	SSE	285	1·3	10·0	0·00	0·031	1
2	29·762	47·9	47·0	49·0	46·3	55·4	45·3	SSE	311	2·3	10·0	0·00	0·008	2
3	29·585	48·4	47·1	53·0	44·3	87·7	37·1	SSW	189	1·0	2·7	4·00	0·071	3
4	29·651	39·9	38·0	45·8	36·7	84·2	28·8	SSW	280	1·3	7·0	5·05	0·019	4
5	29·404	43·4	41·7	47·7	36·7	81·0	31·1	SSW	160	1·3	5·7	2·80	0·224	5
6	29·797	37·2	35·6	44·5	30·0	78·1	23·6	SSE	400	0·7	3·0	5·95	0·067	6
7	29·331	40·4	38·7	45·7	36·4	78·4	29·4	Var.	221	4·0	4·3	2·80	0·532	7
8	29·280	36·5	35·4	42·2	32·6	48·3	24·9	SSE	344	2·7	7·3	0·50	0·127	8
9	29·310	39·9	37·4	44·0	37·0	83·9	30·4	SW	380	3·3	5·7	5·55	0·083	9
10	28·859	46·9	45·1	49·7	37·2	52·0	32·0	SSE	563	6·0	10·0	0·05	0·370	10
11	29·024	42·2	38·9	47·8	39·0	84·2	34·3	SW	284	4·3	1·7	4·90	0·005	11
12	29·417	42·1	40·6	50·1	36·2	84·1	28·8	SSE	276	1·3	4·0	4·10	0·010	12
13	29·192	45·4	43·4	48·8	40·0	60·3	33·3	SE	239	3·7	6·0	0·05	0·091	13
14	29·383	45·1	43·5	50·0	40·1	89·4	34·0	S	336	1·7	3·7	4·95	0·449	14
15	29·202	45·0	43·3	48·9	42·7	54·4	38·3	SSW	317	4·7	7·7	0·10	0·334	15
16	29·628	43·7	42·7	49·6	37·3	59·8	27·9	SSE	420	2·3	7·3	1·10	0·060	16
17	29·615	52·0	50·3	52·6	49·5	53·6	47·5	S	477	4·7	10·0	0·00	0·185	17
18	29·461	50·2	47·9	52·5	48·5	56·2	46·5	S	407	4·7	10·0	0·00	0·142	18
19	29·485	49·9	47·4	53·5	46·8	88·9	39·7	SSW	290	2·7	3·7	5·75	...	19
20	29·106	46·4	44·9	51·5	44·0	57·0	38·1	SW	338	3·7	6·7	0·15	0·376	20
21	29·081	42·2	41·1	44·9	41·4	45·9	35·7	Var.	289	2·3	9·7	0·00	0·194	21
22	29·351	39·7	38·7	43·7	38·0	42·7	31·9	Var.	273	1·3	10·0	0·00	0·626	22
23	29·840	38·9	37·2	42·3	36·1	63·4	30·8	SW	349	1·0	3·3	3·15	0·231	23
24	29·301	47·6	45·1	52·4	39·5	84·0	35·0	SW	349	3·7	5·7	1·90	0·124	24
25	29·210	42·1	39·6	44·9	38·8	84·0	34·0	WSW	370	2·7	8·0	3·05	0·090	25
26	29·433	43·6	42·5	48·6	39·8	47·4	35·0	SW	288	2·0	5·3	0·00	0·322	26
27	29·700	40·6	39·3	48·7	37·7	69·5	29·3	SSW	165	1·0	7·0	1·95	0·187	27
28	29·822	48·7	47·6	51·6	41·2	76·3	39·7	SW	342	3·0	10·0	0·25	0·021	28
29	29·852	47·4	45·8	49·8	46·2	54·3	43·5	SW	279	1·7	10·0	0·00	...	29
30	29·895	47·6	46·4	49·6	45·3	60·8	36·4	WSW	101	1·3	8·3	0·00	...	30
31	30·141	44·4	43·8	48·7	40·9	64·2	35·4	WSW	156	1·3	10·0	0·05	0·021	31
Mean or Sum.	29·484	44·20	42·59	48·36	40·32	67·05	34·79	...	9478	2·55	6·90	58·15	5·000	Mean or Sum.

Weather.

1. Overcast. 2. Overcast. 3. Rain till 10½h a.m., then fine. 4. Fine after 10h a.m. 5. Rain early; fine after 10h a.m. 6. Fine till 4½h p.m., then rain. 7. Frequent rain till 11h a.m., then fine. 8. Rain after 4h p.m. 9. Fine; rain early. 10. Squalls of wind and rain. 11. Very fine generally. 12. Fine. 13. Cloudy to fine night; rain 9h–10h a.m. 14. Very fine till afternoon; rain early and in evening. 15. Rain early. 16. Fine till 10h a.m.; rain afternoon. 17. Rain afternoon. 18. Rain afternoon. 19. Very fine generally. 20. Rainy till 2h p.m.; fine night. 21. Rain at times. 22. Rain 1h–7h p.m., heavy at times. 23. Very fine to fine; rain after 10h p.m. 24. Rain till 10½h a.m., then fine. 25. Fine to cloudy; rain evening. 26. Rain 10h a.m.–4½h p.m. 27. Very fine till 10h a.m.; rain evening. 28. Overcast. 29. Overcast. 30. Overcast to fine night. 31. Overcast; drizzle morning.

Indications of Schönbein's Ozonometer, observed at Noon and 8^h *p.m. of each day, during the Year* 1911.

Day.	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h
1	2	0	0	0	5	2	5	0	1	4	6	4	3	3	5	5	3	2	4	2	0	0	0	0
2	0	0	0	0	5	5	0	0	7	5	7	5	6	4	4	6	5	2	1	0	1	0	0	0
3	2	0	0	0	2	0	4	2	4	7	6	3	5	4	1	5	5	4	2	0	0	4	0	0
4	1	0	0	0	0	0	1	0	6	4	4	6	3	4	4	5	1	0	0	0	4	1	0	0
5	0	0	0	0	0	0	7	7	2	4	2	4	0	4	4	6	1	0	6	4	7	5	0	0
6	0	0	0	0	0	0	6	7	2	4	4	4	3	3	5	5	2	1	7	0	2	3	0	0
7	0	0	0	0	0	0	6	4	5	3	5	5	2	3	5	4	1	0	0	0	0	0	0	0
8	0	0	0	0	0	0	5	5	1	5	5	3	2	2	6	6	4	2	1	1	4	0	0	0
9	0	0	0	0	1	0	5	0	6	6	1	4	5	4	6	6	9	4	6	3	1	0	2	0
10	0	0	0	0	0	1	5	6	7	5	6	5	6	4	6	6	6	3	4	2	0	0	0	0
11	3	0	0	0	5	0	6	4	7	5	4	4	5	0	6	7	4	0	1	0	0	0	0	0
12	6	0	0	0	0	0	1	0	6	4	4	4	4	1	9	5	1	0	0	0	3	5	0	0
13	0	0	0	0	4	0	4	5	3	4	7	5	4	2	6	3	0	0	0	0	0	0	0	0
14	0	0	0	0	4	0	0	0	0	3	5	4	5	2	5	3	5	4	0	0	0	0	0	0
15	0	0	1	0	0	0	1	5	3	4	6	0	3	3	6	3	4	3	7	3	1	0	0	0
16	0	0	3	3	0	0	7	4	4	2	2	3	2	0	5	3	3	3	5	1	4	0	0	0
17	0	0	6	0	0	0	4	4	5	4	5	4	5	2	5	2	0	2	5	2	4	0	7	3
18	0	0	7	4	7	7	3	3	1	3	5	5	5	3	3	4	2	0	0	0	0	0	1	0
19	0	0	8	3	7	0	6	6	6	4	3	4	4	4	4	6	3	0	0	0	6	2	1	0
20	0	0	0	1	4	6	6	3	8	4	6	4	1	4	4	4	4	0	0	0	1	0	0	0
21	0	0	0	0	3	0	6	0	7	5	2	3	4	3	4	4	4	0	0	0	0	0	6	0
22	0	0	7	5	0	3	7	4	1	4	7	5	2	4	6	6	0	0	1	7	0	0	0	0
23	0	0	7	7	6	0	7	5	4	7	5	3	5	3	6	6	1	0	6	0	4	3	0	0
24	0	0	6	3	7	3	6	4	7	3	4	4	6	4	3	1	5	0	0	0	5	4	5	0
25	0	1	5	4	6	7	4	4	2	3	6	4	4	2	1	4	0	0	0	0	4	0	0	3
26	2	0	7	4	9	5	8	4	3	3	7	5	0	3	3	5	5	0	0	0	0	0	1	0
27	3	0	0	0	8	4	6	6	3	4	5	4	2	2	6	3	0	0	0	0	0	0	0	0
28	0	0	4	3	7	6	6	4	6	5	3	3	4	4	5	2	6	3	4	0	0	0	0	1
29	0	0	...	...	4	0	6	5	6	3	4	3	8	4	5	6	4	2	0	0	0	0	0	0
30	1	0	...	...	5	0	0	4	5	0	5	1	7	4	3	4	6	5	4	3	0	0	0	0
31	0	0	...	...	0	0	...	...	6	4	...	...	3	4	1	0	...	...	0	0	..	...	0	0
Means	0·6	0·0	2·2	1·3	3·2	1·6	4·6	3·5	4·3	4·0	4·7	3·8	3·8	3·0	4·6	4·4	3·1	1·3	2·1	0·9	1·7	0·9	0·7	0·2

SUMMARY OF THE WEATHER AND REMARKABLE PHENOMENA
1911.

JANUARY.

Temperature.

Highest, air, on the 26th at $1^h\ 25^m$ p.m.	50·3°
Lowest, air, on the 31st at $8^h\ 25^m$ a.m.	25·4
Highest, sun, on the 28th	91·7
Lowest, grass, on the 31st	20·1

*Rain on the 1st, 3rd, 5th, 6th, 7th, 9th, 11th, 12th, 20th, 21st, 23rd, and 24th.

Snow on the 2nd, 12th, and 13th.

Fog on the 14th, 15th, 16th, 20th, 23rd, and 24th.

Solar halo on the 1st, 10th, 12th (with contact arch), 24th, and 29th.

Parhelion on the 12th.

Lunar halo on the 10th and 11th.

Lunar corona on the 7th, 10th, 11th, and 13th.

Paraselene on the 7th.

Zodiacal light on the 28th, 30th, and 31st (with zodiacal band).

Gegenschein on the 31st.

FEBRUARY.

Temperature.

Highest, air, on the 25th at $4^h\ 10^m$ p.m.	54·4°
Lowest, air, on the 2nd at $6^h\ 40^m$ a.m.	21·9
Highest, sun, on the 22nd	106·1
Lowest, grass, on the 1st	14·8

Rain on the 3rd, 4th, 10th, 15th, 16th, 18th, 19th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, and 28th.

Fog on the 1st and 2nd.

Gale on the 17th, 18th, 22nd, and 23rd.

Solar halo on the 10th, 14th, 15th, 16th, 20th, and 25th.

Parhelia on the 10th, 15th, and 25th.

Lunar halo on the 15th.

Zodiacal light on the 22nd, 23rd, 25th, and 28th.

MARCH.

Temperature.

Highest, air, on the 2nd at $1^h\ 25^m$ p.m.	57·9°
Lowest, air, on the 17th at $5^h\ 35^m$ a.m.	30·2
Highest, sun, on the 28th	111·0
Lowest, grass, on the 17th	23·0

Rain on the 3rd, 4th, 6th, 7th, 9th, 10th, 11th, 12th, 15th, 16th, 21st, 22nd, 23rd, 27th, 28th, and 30th.

Snow on the 12th, 13th, 14th, 15th, 25th, and 26th.

Hail on the 9th and 16th.

Sleet on the 15th and 16th.

Fog on the 8th and 17th.

Gale on the 26th.

Solar halo on the 5th, 8th, 10th, 12th, 20th, and 28th.

Parhelion on the 10th.

Lunar halo on the 17th.

Lunar corona on the 6th.

Zodiacal light on the 1st, 3rd, 20th (very bright), 24th (unusually bright, with zodiacal band), and 28th.

APRIL.

Temperature.

Highest, air, on the 22nd at $2^h\ 15^m$ p.m.	63·4°
Lowest, air, on the 6th at $1^h\ 15^m$ a.m.	26·6
Highest, sun, on the 26th	126·4
Lowest, grass, on the 6th	22·7

Rain on the 2nd, 9th, 10th, 21st, 22nd, 26th, 27th, 28th, 29th, and 30th.

Snow on the 3rd, 4th, 5th, and 6th.

Hail on the 3rd, 7th, 10th, 29th, and 30th.

Fog on the 12th.

Gale on the 5th and 19th.

Solar halo on the 12th, 15th, 16th (with contact arch), 17th, 18th, 22nd, 23rd, 24th, 25th, and 29th.

Parhelia on the 16th and 29th.

Lunar halo on the 7th and 17th.

Lunar corona on the 7th and 12th.

* Amounts of Rainfall under $0^{in}\cdot005$ are not included in this summary.

MAY.

Temperature.

	°
Highest, air, on the 29th at $3^h\ 10^m$ p.m.	74·1
Lowest, air, on the 22nd at $6^h\ 5^m$ a.m.	40·4
Highest, sun, on the 30th	132·8
Lowest, grass, on the 6th	32·6

Rain on the 2nd, 3rd, 13th, 14th, 26th, 30th, and 31st.
Snow on the 20th.
Fog on the 22nd and 25th.
Gale on the 3rd.
Solar halo on the 2nd, 3rd, 8th, 23rd, 25th, 28th, 30th, and 31st.
Lunar halo on the 3rd, 7th, 9th, 10th, and 13th.
Lunar corona on the 10th.
Paraselenae on the 3rd and 10th.
Thunderstorm on the 13th, $8\frac{1}{4}^h$ a.m. and $5\frac{1}{4}^h$ p.m.; 26th, 2^h a.m. and later (heavy); 30th, 9^h-$10\frac{1}{2}^h$ p.m.; and 31st, 5^h-6^h p.m. (slight).
Lightning and thunder on the 11th, $3\frac{1}{2}^h$-6^h p.m.
Lightning on the 10th, $8\frac{1}{4}^h$ p.m.; 13th, evening; and 25th, 10^h p.m. and later.
Distant thunder on the 13th, afternoon and evening; 30th, 8^h p.m.; and 31st, afternoon and evening.

JUNE.

Temperature.

	°
Highest, air, on the 5th at $4^h\ 25^m$ p.m. / $5^h\ 10^m$ p.m. / $5^h\ 55^m$ p.m.	80·3
Lowest, air, on the 10th at $3^h\ 40^m$ a.m. / 15th at $4^h\ 50^m$ a.m.	41·7
Highest, sun, on the 9th	135·0
Lowest, grass, on the 14th	31·0

Rain on the 16th, 18th, 19th, 23rd, 24th, 25th, 26th, 29th, and 30th.
Solar halo on the 20th, 24th, and 28th.
Lightning and thunder (distant) on the 4th, between $9\frac{1}{2}^h$ and $10\frac{1}{2}^h$ p.m.
Thunder on the 3rd, afternoon and evening.

JULY.

Temperature.

	°
Highest, air, on the 29th at $3^h\ 35^m$ p.m.	89·2
Lowest, air, on the 10th at $3^h\ 35^m$ a.m. / $4^h\ 0^m$ a.m.	47·7
Highest, sun, on the 28th	144·6
Lowest, grass, on the 11th	38·8

Rain on the 1st, 2nd, and 29th.
Solar halo on the 3rd, 16th, 17th, 20th, 21st, 22nd, 26th, 29th, 30th, and 31st.
Parhelia on the 3rd and 26th.
Lunar halo on the 6th.
Thunderstorm on the 29th, 8^h p.m.
Lightning and thunder (distant) on the 28th, evening.

AUGUST.

Temperature.

	°
Highest, air, on the 9th at $2^h\ 10^m$ p.m. / $2^h\ 16^m$ p.m.	92·6
Lowest, air, on the 31st at 5^h a.m. ...	47·4
Highest, sun, on the 9th	153·7
Lowest, grass, on the 31st	41·8

Rain on the 2nd, 3rd, 5th, 20th, 21st, 22nd, 24th, 25th, 27th, 28th, and 30th.
Fog on the 2nd and 17th.
Solar halo on the 2nd, 6th, 12th, 17th, 18th, 19th, 29th, 30th, and 31st.
Lunar halo on the 12th and 18th.
Lunar corona on the 29th.
Thunderstorm on the 20th, $8\frac{1}{2}^h$ p.m.; and 25th, $0\frac{3}{4}^h$ p.m. (slight).
Lightning and thunder on the 20th, evening; and 30th, between 2^h and 4^h p.m.
Lightning on the 21st, 10^h p.m.
Thunder on the 11th, 5^h-6^h p.m.; 20th, afternoon; and 21st, 4^h-5^h p.m. (distant), and $5\frac{3}{4}^h$ p.m. (with shower).

SEPTEMBER.

Temperature.

	°
Highest, air, on the 8th at $3^h\ 15^m$ p.m.	88·5
Lowest, air, on the 22nd at $6^h\ 5^m$ a.m.	38·3
Highest, sun, on the 8th	141·4
Lowest, grass, on the 22nd...	32·6

Rain on the 4th, 13th, 19th, 20th, 23rd, 24th, 27th, 28th, 29th, and 30th.

Fog on the 5th, 17th, and 22nd.
Gale on the 30th.
Solar halo on the 3rd, 4th, 12th, 20th, 22nd, 24th, 27th, and 28th.
Lunar corona on the 5th.
Thunderstorm on the 20th, 6^h p.m.
Lightning on the 12th, after 8^h p.m.; 20th, $7\frac{1}{4}^h$ p.m.; and 21st, $7\frac{1}{4}^h$ p.m.

OCTOBER.

Temperature.

	°
Highest, air, on the 19th at $0^h\ 45^m$ p.m.	62·5
Lowest, air, on the 29th at $7^h\ 5^m$ a.m.	29·5
Highest, sun, on the 10th	117·8
Lowest, grass, on the 29th	24·0

Rain on the 2nd, 3rd, 4th, 5th, 6th, 7th, 13th, 18th, 19th, 20th, 21st, 22nd, 24th, 26th, 29th, and 30th.
Fog on the 12th, 13th, 18th, 19th, and 27th.

Gale on the 22nd and 30th.
Solar halo on the 4th, 6th, 8th, 13th, 20th, 27th, and 29th.
Parhelia on the 6th and 27th.
Lunar halo on the 3rd, 7th, 8th, and 9th.
Lunar corona on the 4th, 7th, 9th, 10th, and 31st.
Lightning and thunder on the 13th, between 5^h and 6^h a.m.
Lightning on the 26th, 10^h p.m.

NOVEMBER.

Temperature.

	°
Highest, air, on the 5th at $4^h\ 35^m$ a.m.	57·9
Lowest, air, on the 22nd at $0^h\ 10^m$ a.m. and $0^h\ 25^m$ a.m.	28·5
Highest, sun, on the 13th	105·1
Lowest, grass, on the 22nd...	24·0

Rain on the 2nd, 3rd, 4th, 5th, 7th, 8th, 9th, 11th, 12th, 13th, 15th, 16th, 17th, 18th, 19th, 20th, 26th, and 28th.
Snow on the 26th and 27th.

Hail on the 17th.
Sleet on the 26th.
Fog on the 11th and 29th.
Gale on the 5th.
Solar halo on the 1st, 3rd, 4th, 8th, 11th, 16th, 17th, 19th, 25th, and 26th.
Parhelion on the 19th.
Sun pillar on the 21st.
Lunar halo on the 1st, 7th, and 8th.
Lunar corona on the 1st and 8th.
Paraselenae on the 7th and 8th.

DECEMBER.

Temperature.

	°
Highest, air, on the 17th at $11^h\ 5^m$ a.m.	52·4
Lowest, air, on the 6th at $8^h\ 25^m$ a.m.	30·9
Highest, sun, on the 14th	89·4
Lowest, grass, on the 6th	23·6

Rain on the 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 20th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, and 31st.

Fog on the 6th, 28th, and 30th.
Gale on the 10th and 11th.
Solar halo on the 5th, 9th, 11th (with contact arch), 14th, 23rd, 25th, 26th, and 27th.
Parhelia on the 5th, 11th, 14th, 23rd, and 27th.
Sun pillar on the 11th.
Lunar halo on the 4th, 6th, 8th, and 30th.
Lunar corona on the 6th, 8th, 9th, 30th, and 31st.
Zodiacal light on the 19th, 20th, and 21st.

Recorded at the Radcliffe Observatory by the Anemograph, at an elevation of 114 *feet above the Ground.*

Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.
Jan. 1	WNW	406	Feb. 1	NE	112	Mar. 1	WSW	483	Apr. 1	NE	136
2	NW	475	2	N	103	2	WSW	538	2	Nearly Calm	60
3	NNE	416	3	N	219	3	WSW	388	3	NNE	332
4	NNE	298	4	NNE	200	4	Var.†	341	4	N	371
5	N	153	5	NNE	166	5	NW	127	5	NE	571
6	Var.†	360	6	N	117	6	WSW	179	6	NE	526
7	W	232	7	WNW	79	7	N	278	7	NE	363
8	SW	340	8	N	110	8	WSW	201	8	NNE	405
9	W	338	9	SSE	156	9	W	309	9	NNE	297
10	WSW	249	10	S	221	10	SW	456	10	N	541
11	SSW	567	11	WNW	247	11	Var.†	226	11	NE	448
12	N	625	12	W	149	12	SW	303	12	Var.†	149
13	N	300	13	SW	166	13	NNW	533	13	ENE	191
14	WSW	76	14	SSW	346	14	NW	488	14	WSW	182
15	SW	122	15	Var.†	257	15	NW	404	15	WSW	369
16	SW	112	16	SW	594	16	N	217	16	WSW	397
17	SW	179	17	WSW	569	17	Var.†	216	17	SW	228
18	WNW	169	18	WSW	769	18	ENE	465	18	S	513
19	WNW	127	19	W	567	19	ENE	412	19	S	708
20	S	91	20	W	360	20	NE	388	20	SW	476
21	WSW	176	21	SSW	537	21	NE	321	21	SSW	527
22	SSW	99	22	WSW	746	22	NE	321	22	SW	481
23	SSW	68	23	SW	871	23	NE	408	23	SW	502
24	SW	273	24	WSW	635	24	NE	389	24	WSW	373
25	WSW	517	25	SW	511	25	NNE	579	25	SW	410
26	WSW	419	26	W	559	26	NNE	775	26	WSW	547
27	WSW	306	27	S	368	27	NE	655	27	SW	600
28	SSW	149	28	SW	561	28	E	373	28	WSW	538
29	SE	168				29	NE	337	29	WSW	439
30	E	396				30	NNE	229	30	NW	190
31	ENE	273				31	Var.†	122			
Sum ...		8479	Sum ...		10295	Sum ...		11461	Sum ...		11870

† **Jan. 6.** S till 4h p.m.; then veering to NNW by 4½h p.m.; NNW after. **Feb. 15.** Gradually veering from SSW at midnight to NNW by 9h a.m.; NW till 6h p.m.; then backing suddenly to SSW; S after. **Mar. 4.** SW till 5½h p.m.; then veering suddenly to NNW; N after 7h p.m. **Mar. 11.** SW till 9½h a.m.; veering to NNE by 10h a.m.; then generally backing to W by midnight. **Mar. 17.** Gradually backing from WSW at midnight to E by 4½h p.m.; E after. **Mar. 31.** SW till 9h a.m.; then slowly veering to NNE by 4h p.m.; NNE after. **Apr. 12.** Nearly calm till 1h p.m.; NNW after.

Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.
May 1	W	291	June 1	ENE	261	July 1	W	253	Aug. 1	S	302
2	SSW	519	2	NE	231	2	WNW	300	2	SSW	244
3	SW	563	3	Var.†	122	3	WNW	186	3	SW	355
4	WSW	288	4	Var.†	98	4	WSW	207	4	SW	281
5	WNW	215	5	N	159	5	WSW	100	5	SSW	335
6	Var.†	135	6	NNE	318	6	SW	102	6	SW	384
7	SSW	210	7	NE	309	7	NE	162	7	WSW	240
8	Var.†	118	8	E	188	8	Var.†	155	8	SSE	169
9	NE	323	9	NNE	308	9	NE	271	9	Var.†	180
10	NE	340	10	NE	151	10	NE	277	10	N	336
11	NE	267	11	WSW	117	11	NE	261	11	NE	377
12	NNE	209	12	W	161	12	NE	272	12	ENE	333
13	Var.†	120	13	NNE	297	13	NNE	303	13	ENE	203
14	SW	142	14	N	229	14	NNE	153	14	NE	283
15	SW	109	15	ENE	158	15	NNE	242	15	NE	210
16	N	116	16	SE	272	16	Var.†	289	16	NE	123
17	NE	133	17	S	341	17	W	330	17	Var.†	171
18	NE	154	18	SSW	472	18	W	371	18	W	214
19	NNE	179	19	SSW	341	19	WSW	316	19	Var.†	126
20	NNE	300	20	WSW	379	20	SSW	366	20	ESE	162
21	ENE	151	21	SW	360	21	SSW	310	21	Var.†	113
22	W	168	22	SSW	578	22	Var.†	236	22	NNE	200
23	WSW	372	23	SSW	201	23	NE	207	23	NNE	124
24	WSW	397	24	W	436	24	SE	163	24	S	308
25	S	160	25	WSW	359	25	WSW	207	25	SW	263
26	NE	197	26	W	369	26	WSW	171	26	SW	345
27	NNE	146	27	W	262	27	SSW	286	27	SSW	485
28	NE	318	28	WSW	421	28	Var.†	104	28	SW	231
29	NNE	364	29	SW	446	29	E	238	29	WSW	373
30	NNE	295	30	WSW	317	30	S	388	30	Var.†	123
31	N	140				31	S	234	31	SW	195
Sum ...		7439	Sum ...		8661	Sum ...		7460	Sum ...		7788

† **May 6.** N till $11\frac{1}{4}^h$ a.m.; light airs till $7\frac{1}{4}^h$ p.m.; SSE after. **May 8.** Light airs till $4\frac{1}{4}^h$ p.m.; ESE after. **May 13.** NNE till $0\frac{1}{2}^h$ p.m.; then light airs. **June 3.** NE till 11^h a.m.; then light airs. **June 4.** WSW till 3^h a.m.; then nearly calm till $6\frac{1}{2}^h$ a.m.; NE after. **July 8.** Nearly calm till $9\frac{1}{2}^h$ a.m.; N after. **July 16.** ENE till $6\frac{1}{2}^h$ a.m.; suddenly backing to W; veering to N by 3^h p.m.; NNW after. **July 22.** SW till $4\frac{1}{2}^h$ p.m.; then slowly veering to NNE by midnight. **July 28.** Light airs. **Aug. 9.** Light airs till $8\frac{1}{2}^h$ a.m.; SSE till $4\frac{1}{2}^h$ p.m.; then veering to N by midnight. **Aug. 17.** Light airs till $6\frac{1}{2}^h$ a.m.; then veering from NE to WSW by noon; WSW after. **Aug. 19.** NE till noon; light airs after. **Aug. 21.** ENE till $9\frac{1}{2}^h$ a.m.; veering to WSW by noon; backing to NE by 4^h p.m.; NNE after. **Aug. 30.** WSW till $11\frac{1}{2}^h$ a.m.; then veering to NE; NE till 2^h p.m.; veering through 360° by $4\frac{1}{2}^h$ p.m.; light airs after.

Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.
Sept. 1	SSW	279	Oct. 1	NNW	434	Nov. 1	SW	312	Dec. 1	SSE	305
2	SW	191	2	WNW	121	2	SSW	414	2	SSE	435
3	N	125	3	NE	293	3	SSW	461	3	SSW	255
4	Var.†	167	4	NNW	373	4	SSW	469	4	SSW	253
5	NNW	129	5	NNE	374	5	SW	786	5	SSW	348
6	W	111	6	NE	235	6	SW	568	6	SSW	237
7	SW	81	7	NNW	207	7	SSW	442	7	Var.†	494
8	SSW	160	8	N	167	8	SSW	413	8	S	342
9	NE	341	9	NNE	374	9	S	271	9	SW	385
10	ESE	209	10	NE	203	10	Var.†	200	10	SSE	576
11	SSE	229	11	ENE	175	11	Var.†	208	11	SW	616
12	Var.†	131	12	NE	84	12	S	551	12	S	235
13	NW	231	13	Var.†	84	13	SW	533	13	SE	439
14	N	237	14	ENE	141	14	S	394	14	S	281
15	NNE	318	15	NE	271	15	S	513	15	S	537
16	NNE	239	16	ENE	310	16	SW	610	16	S	367
17	NW	116	17	NE	266	17	S	501	17	S	563
18	WSW	236	18	NE	130	18	Var.†	305	18	S	591
19	SW	290	19	ESE	134	19	W	568	19	S	381
20	SSW	351	20	S	261	20	NW	322	20	SSW	454
21	W	158	21	SSE	433	21	NW	194	21	Var.†	385
22	SSW	99	22	SSW	502	22	Var.†	227	22	Var.†	333
23	SSE	294	23	SW	460	23	NE	489	23	Var.†	326
24	WSW	204	24	SSW	341	24	NE	517	24	SSW	547
25	S	335	25	WSW	204	25	NE	388	25	SW	405
26	WSW	272	26	SSW	391	26	NNE	241	26	SW	452
27	SW	299	27	Var.†	287	27	Var.†	200	27	Var.†	199
28	W	254	28	N	265	28	SSE	219	28	SSW	434
29	W	313	29	Var.†	287	29	SSW	146	29	SW	299
30	Var.†	581	30	SW	658	30	SSE	205	30	WSW	255
			31	SW	416				31	WSW	162
Sum ...		6980	Sum ...		8881	Sum ...		11667	Sum ...		11891

† Sept. 4. NNE till 8h a.m.; then veering through 540° to SSW by 10½h a.m.; S after. Sept. 12. Nearly calm till 6½h a.m.; then slowly veering from N to WSW by midnight. Sept. 30. Veering from S to NNW by noon; NNW after. Oct. 13. N till noon; then backing to SSE by 2h p.m.; SSE after. Oct. 27. SW till 4h a.m.; then backing to NE by 8½h a.m.; NNE after. Oct. 29. Light airs till 10½h a.m.; S after. Nov. 10. SSE till 9h a.m.; veering to N by 10½h a.m.; then gradually backing to SSW by midnight. Nov. 11. Backing from WSW to ESE by 0½h p.m.; ESE after. Nov. 18. S till 11h a.m.; veering to N by noon; then slowly backing to W by midnight. Nov. 22. Gradually veering from WSW to ENE by 8h p.m.; NE after. Nov. 27. NNW till 8h a.m.; then suddenly backing to S; S after. Dec. 7. SSE till 10h a.m.; veering to NNW by 11¼h a.m.; NNW till 3¼h p.m.; then backing to WSW by midnight. Dec. 21. Backing from SSW to WSW by 6h p.m.; WSW after. Dec. 22. Backing slowly from WSW to E by 6h p.m.; then suddenly veering through 360°; again slowly backing to N by midnight. Dec. 23. Backing from N to SSE by 4h p.m.; SSE after. Dec. 27. NW till 6½h a.m.; then backing to SW by 7h a.m.; SW till 5½h p.m.; again backing to SSE by 6h p.m.; SSE after.

METEOROLOGICAL OBSERVATIONS

MADE AT THE

RADCLIFFE OBSERVATORY, OXFORD,

1912.

JANUARY, 1912.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	30·231	47·1	46·3	49·4	44·2	55·4	38·8	WSW	172	1·0	9·7	0·00	...	1
2	30·200	44·4	42·8	47·6	40·2	72·4	32·0	SW	287	1·0	5·7	2·90	...	2
3	30·007	47·5	45·6	48·6	45·9	56·3	44·0	WSW	334	1·7	10·0	0·00	0·012	3
4	29·675	48·7	47·5	50·1	47·0	55·6	44·8	WSW	423	3·7	10·0	0·00	0·145	4
5	29·327	40·2	38·2	50·5	37·2	89·1	33·0	W	358	3·7	4·3	3·75	0·126	5
6	28·770	43·3	42·2	50·2	36·7	50·7	32·0	S	411	3·7	8·7	0·00	0·434	6
7	29·227	37·0	35·5	50·1	33·0	67·3	28·2	N	144	1·3	6·7	1·30	0·095	7
8	29·539	34·1	33·3	38·7	28·2	42·2	23·0	ESE	329	1·0	9·3	0·00	0·472	8
9	29·285	45·4	43·6	50·9	38·6	85·7	35·1	SSW	175	2·7	2·0	4·50	0·105	9
10	29·750	40·9	40·4	45·7	34·7	70·4	32·5	SE	248	1·0	4·3	1·60	0·007	10
11	29·835	43·6	42·3	46·5	42·2	70·3	33·2	S	91	1·0	10·0	1·05	0·015	11
12	30·000	39·3	38·6	45·4	34·1	67·4	33·6	S	160	1·0	9·7	0·15	...	12
13	29·857	45·5	44·9	47·0	41·5	48·9	38·7	SSE	213	1·0	10·0	0·00	0·061	13
14	29·744	43·1	41·9	46·0	41·2	49·0	41·0	S	214	2·0	10·0	0·00	0·063	14
15	29·589	44·9	44·3	46·4	44·0	51·8	40·9	SSE	265	2·3	10·0	0·00	0·034	15
16	29·499	43·5	42·7	45·8	43·2	48·4	42·1	ESE	271	2·0	10·0	0·00	0·254	16
17	29·656	34·6	34·0	43·5	31·0	42·7	31·0†	ENE	206	2·3	10·0	0·00	0·994	17
18	29·656	32·6	32·3	33·8	31·1	37·9	30·6†	N	141	1·0	10·0	0·00	0·466	18
19	29·874	35·9	35·1	41·7	31·0	79·9	22·0	E	99	1·0	5·0	3·30	0·042	19
20	29·748	42·7	42·0	47·3	36·4	71·2	32·8	E	108	1·0	8·0	0·45	0·037	20
21	29·846	38·1	38·1	45·5	36·7	45·1	34·7	SW	26	0·7	10·0	0·00	0·011	21
22	29·640	33·7	33·6	37·5	32·1	40·6	32·5	ENE	204	0·7	10·0	0·00	0·181	22
23	29·479	37·0	36·5	39·2	33·2	39·1	32·0	NE	278	2·0	10·0	0·00	0·415	23
24	29·304	35·1	34·9	38·8	33·9	40·2	32·0	NE	52	1·7	10·0	0·00	0·409	24
25	29·445	37·8	36·7	43·2	35·3	78·6	30·3	WNW	128	1·0	7·3	4·55	0·007	25
26	29·691	36·7	35·2	40·5	34·4	77·6	29·4	NE	225	2·3	5·7	1·15	...	26
27	29·955	31·8	29·7	38·0	29·0	88·1	23·1	NE	150	1·3	1·3	6·35	...	27
28	30·054	28·0	26·8	39·5	23·2	78·8	18·2	ENE	26	0·7	2·3	6·65	...	28
29	30·087	27·6	25·4	40·9	18·7	85·6	13·1	Nearly Calm	91	0·3	0·0	6·45	...	29
30	30·040	28·9	27·1	38·7	19·8	63·3	13·0	W	220	0·7	4·7	5·00	0·002	30
31	29·780	34·5	33·1	41·3	31·1	79·4	24·8	W	103	2·0	6·7	2·65	...	31
Mean or Sum.	29·703	38·82	37·76	44·14	35·12	62·23	31·37	...	6152	1·57	7·46	51·80	4·387	Mean or Sum.

Weather.

1. Overcast. 2. Very fine till noon. 3. Overcast. 4. Rain at times; lightning 5½h p.m. 5. Fine intervals; rain and hail showers morning. 6. Rain till afternoon; night squally. 7. Rain early; fine afternoon. 8. Rain, sleet, and hail after 1h p.m. 9. Variable; rain and hail showers afternoon. 10. Fine to overcast. 11. Fine interval 2½h–3½h p.m. 12. Cloudy. 13. Rain early. 14. Drizzle or light rain after 6½h p.m. 15. Overcast. 16. Frequent light rain. 17. Rain at first, hail midday, then snow. 18. Snow till 2h p.m., then rain at times. 19. Fine till afternoon; rain after 8h p.m. 20. Fine midday; light rain in morning. 21. Foggy; frequent drizzle. 22. Foggy; rain after 9½h p.m. 23. Rain and snow in early morning. 24. Rain, hail, sleet, and snow till 8½h a.m., then rain at times. 25. Fine to overcast night. 26. Cloudy to fine night. 27. Very fine generally. 28. Very fine. 29. Very fine. 30. Very fine till afternoon; snow 4h p.m. 31. Overcast morning; fine after.

† Grass Thermometer covered with snow.

FEBRUARY, 1912.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·418	33·6	32·5	38·5	31·8	85·6	24·6	W	196	1·0	9·7	0·85	...	1
2	29·159	26·0	24·1	33·5	23·0	67·0	17·5	NNW	258	2·0	5·7	1·65	...	2
3	29·346	25·0	23·2	33·2	18·3	77·9	14·0	WNW	236	1·3	0·0	6·85	...	3
4	29·346	24·1	22·0	28·3	21·1	68·0	14·2	ENE	237	3·3	3·3	2·80	...	4
5	28·984	27·5	25·5	30·3	18·1	45·3	11·9	E	148	2·3	9·0	0·90	0·068	5
6	28·910	39·0	38·4	44·2	29·8	51·8	28·7	ESE	214	1·3	10·0	0·00	0·057	6
7	29·058	42·7	40·7	48·9	37·0	92·0	28·2	SSE	295	2·0	8·0	1·70	0·192	7
8	28·783	46·1	45·1	49·0	42·3	51·7	38·0	SE	276	1·7	7·0	0·00	0·101	8
9	28·854	49·2	47·8	53·4	46·1	93·0	37·3	SE	301	2·3	8·7	2·40	0·168	9
10	29·135	43·6	41·9	50·3	39·6	90·7	33·2	SSE	226	1·7	0·7	5·45	...	10
11	29·083	45·8	43·6	51·7	39·2	96·3	33·3	SE	223	1·7	5·0	6·35	0·022	11
12	29·180	43·4	42·5	46·7	40·0	51·8	31·7	E	183	1·3	10·0	0·00	0·346	12
13	29·427	42·7	42·2	46·4	41·6	48·8	41·4	NNW	172	1·0	10·0	0·00	0·211	13
14	29·799	42·1	40·8	46·8	39·3	88·6	31·3	NNE	151	1·3	6·3	1·05	...	14
15	29·848	42·7	41·4	44·6	39·2	60·8	31·4	SSE	209	2·3	9·0	0·00	0·100	15
16	29·867	48·5	47·8	51·7	43·9	64·9	41·9	S	210	2·0	10·0	0·00	0·011	16
17	29·770	47·9	45·9	55·6	45·1	85·1	42·0	SSE	155	1·3	6·0	2·10	...	17
18	29·506	48·4	46·1	55·1	45·2	86·0	39·6	SE	205	1·3	5·7	1·80	...	18
19	29·164	48·1	46·4	50·0	46·3	58·9	41·9	SSE	326	2·3	7·0	0·10	0·049	19
20	29·333	44·1	42·3	47·1	42·2	59·2	40·7	WSW	231	3·3	10·0	0·05	0·020	20
21	29·644	42·0	41·2	47·3	33·0	62·7	25·5	SSE	211	1·3	9·7	0·00	0·011	21
22	29·699	51·4	50·5	54·4	46·3	59·0	44·0	S	463	3·3	10·0	0·00	0·172	22
23	29·597	52·7	50·8	55·5	49·7	67·8	48·9	SW	151	3·3	10·0	0·00	0·513	23
24	29·667	44·2	42·5	49·8	38·5	85·3	32·4	SSE	150	0·7	7·0	1·40	0·007	24
25	29·630	48·2	45·6	51·9	46·1	106·0	41·7	SW	183	1·0	9·3	0·45	...	25
26	29·717	46·3	44·4	51·9	35·4	87·9	29·7	SSW	517	3·7	9·7	0·95	0·027	26
27	29·868	49·7	46·4	55·5	47·4	101·1	44·6	SW	443	5·3	7·7	5·35	...	27
28	29·826	52·6	50·1	57·9	49·0	92·2	46·1	S	437	4·0	7·7	1·75	...	28
29	29·613	50·4	47·2	55·8	47·7	102·9	43·9	SSW	421	4·3	6·3	1·95	0·055	29
Mean or Sum.	29·422	43·03	41·34	47·77	38·70	75·46	33·78	...	7428	2·19	7·53	45·90	2·130	Mean or Sum.

Weather.

1. Fine about 2^h p.m., otherwise overcast. 2. Variable. 3. Very fine generally. 4. Cloudy to fine. 5. Cloudy; light snow evening. 6. Overcast; slight rain morning. 7. Fine to overcast; rain night. 8. Slight rain at times. 9. Fine midday; rain at times. 10. Fine generally. 11. Very fine after 9^h a.m. 12. Occasional rain; dull. 13. Light rain till afternoon; dull. 14. Fine intervals after 11^h a.m. 15. Overcast after 9^h a.m.; rain at times. 16. Overcast. 17. Overcast to fine night. 18. Fair to fine. 19. Overcast; rain afternoon and night. 20. Overcast; light showers. 21. Light rain at times. 22. Rain till afternoon. 23. Rain after 4^h p.m. 24. Fine to overcast. 25. Cloudy. 26. Cloudy; showery afternoon. 27. Fine, squally at times. 28. Fine to cloudy. 29. Cloudy to very fine night; showers.

MARCH, 1912.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·410	49·4	47·6	53·6	46·3	85·1	42·4	S	559	5·0	9·0	1·05	0·034	1
2	29·340	50·5	47·6	53·4	47·0	80·3	43·0	S	500	5·7	10·0	0·15	0·097	2
3	29·214	45·3	42·8	51·5	42·7	106·8	38·2	S W	350	3·7	7·0	2·45	0·031	3
4	29·132	44·4	42·7	49·3	41·1	69·0	37·0	S S W	625	4·7	10·0	0·65	0·448	4
5	29·061	45·5	42·2	51·7	41·3	110·1	39·2	W S W	309	3·7	9·0	4·25	0·288	5
6	29·286	42·7	40·0	50·2	38·9	105·4	33·0	W	211	1·7	3·7	4·35	...	6
7	29·693	41·5	38·7	49·1	35·1	108·1	28·4	W	269	1·7	2·7	6·75	0·018	7
8	29·446	42·3	40·6	48·8	37·0	71·6	28·9	S	286	3·3	8·0	1·10	0·149	8
9	29·445	46·1	44·2	52·9	39·5	100·9	30·6	S	183	1·0	7·3	3·30	0·005	9
10	29·489	44·2	42·7	51·2	41·3	97·0	32·8	Nearly Calm	43	0·3	6·7	0·85	0·037	10
11	29·804	40·2	39·9	42·9	35·1	51·9	29·0	N E	69	0·7	10·0	0·00	...	11
12	30·065	40·8	40·3	47·2	36·7	62·8	37·2	S S W	299	1·7	10·0	0·00	0·007	12
13	29·839	49·6	48·2	53·1	44·0	69·5	41·9	S W	228	2·7	7·7	0·00	0·129	13
14	29·747	51·3	49·3	55·9	49·3	98·2	44·0	S S W	300	2·3	10·0	0·90	0·007	14
15	29·514	43·2	41·2	50·4	39·8	83·3	35·8	W S W	297	2·0	8·3	2·65	0·139	15
16	29·549	42·8	40·4	48·7	33·9	109·2	27·9	S S W	316	1·7	6·7	5·20	0·026	16
17	29·061	44·4	43·4	49·0	44·0	92·1	42·0	S S E	246	2·7	9·7	0·20	0·288	17
18	28·668	40·3	39·2	44·5	37·0	59·1	33·0	E N E	268	2·0	9·0	0·05	0·399	18
19	28·951	41·0	39·0	48·6	35·8	109·9	28·6	S W	310	2·7	9·0	4·05	0·138	19
20	29·203	40·2	37·3	46·8	35·1	106·2	30·9	S S W	302	2·3	6·3	5·40	0·036	20
21	28·732	42·8	41·5	51·3	34·8	109·4	31·2	S	403	4·7	10·0	2·95	0·362	21
22	29·088	44·5	42·4	52·5	41·3	111·1	40·0	W	169	2·3	9·0	3·10	0·214	22
23	29·390	42·1	41·5	45·8	35·9	55·0	30·2	S S E	290	1·3	10·0	0·00	0·324	23
24	29·465	50·3	47·4	55·6	45·3	115·8	41·3	S W	386	2·3	9·3	1·30	0·053	24
25	29·843	54·5	52·4	61·0	50·1	111·8	48·4	S W	346	3·3	6·3	2·35	...	25
26	29·965	51·9	48·0	57·4	49·3	111·0	46·3	S S W	332	2·7	7·7	0·85	...	26
27	29·890	50·2	46·1	57·5	46·9	115·4	43·9	W S W	510	3·7	8·0	7·20	0·002	27
28	29·842	51·2	47·6	57·5	47·4	116·6	42·9	W	307	4·0	7·7	3·55	0·012	28
29	29·990	44·9	40·3	53·1	37·0	117·1	32·1	W S W	476	3·7	4·0	10·40	...	29
30	29·804	46·8	41·9	53·9	40·3	120·6	35·0	W S W	333	4·3	2·3	10·55	0·012	30
31	29·335	44·3	42·5	48·9	40·1	94·4	36·0	S	300	2·3	9·7	0·85	0·024	31
Mean or Sum.	29·460	45·46	43·19	51·40	40·95	95·31	36·49	...	9822	2·78	7·87	86·45	3·279	Mean or Sum.

Weather.

1. Cloudy; showers and squally. 2. Overcast; squally, rain night. 3. Cloudy. 4. Rainy; thunderstorm with hail 3½h p.m. 5. Fine till 3h p.m., then rain. 6. Fine. 7. Fine; hail showers afternoon. 8. Rain morning, then fine. 9. Fine intervals. 10. Fair. 11. Overcast. 12. Overcast. 13. Overcast. 14. Generally overcast. 15. Rain morning, then fine intervals. 16. Fine morning. 17. Rain at times. 18. Frequent rain. 19. Fine 10h a.m.–3h p.m., otherwise rainy. 20. Fine intervals; showers midday. 21. Showery; slight thunderstorm with hail 11½h a.m. 22. Showery. 23. Rainy. 24. Cloudy. 25. Fair. 26. Generally overcast. 27. Fine till afternoon. 28. Fair. 29. Fine. 30. Fine. 31. Generally overcast.

APRIL, 1912.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·676	40·2	36·0	48·6	37·0	109·7	34·8	NNW	302	4·0	3·3	6·55	...	1
2	30·107	45·0	41·3	53·7	31·8	121·4	25·5	WSW	158	1·7	4·3	6·90	...	2
3	30·227	48·4	44·3	59·9	34·9	119·6	27·1	WSW	236	1·0	0·3	11·35	...	3
4	30·120	48·8	46·6	56·4	43·5	116·1	38·3	SW	622	3·3	9·7	3·55	...	4
5	29·922	51·3	49·5	58·4	47·0	103·1	43·6	WSW	487	6·0	9·0	3·30	...	5
6	29·967	55·4	52·2	64·7	49·2	122·2	45·7	WSW	245	3·7	3·0	9·40	...	6
7	29·991	52·8	49·1	62·6	46·2	123·9	41·1	WSW	460	2·0	8·7	3·70	...	7
8	29·457	48·5	43·4	54·9	46·2	111·5	41·3	WSW	515	6·0	7·3	3·35	0·002	8
9	29·595	42·6	36·4	47·8	36·2	111·9	29·0	NW	416	3·7	6·0	9·30	0·012	9
10	29·517	43·5	39·4	50·5	39·1	112·1	30·2	NW	199	3·0	6·7	3·95	0·006	10
11	29·784	43·0	38·2	51·7	32·2	114·8	20·2	NW	174	1·7	3·3	9·00	...	11
12	30·205	41·9	36·6	50·9	27·2	108·2	16·1	Var.	63	0·7	4·3	10·55	...	12
13	30·226	46·9	43·4	53·2	39·5	91·4	31·0	W	118	0·7	10·0	1·00	...	13
14	30·184	50·0	45·8	57·3	44·0	114·3	41·1	N	158	1·0	8·7	4·55	...	14
15	30·121	50·1	46·5	57·6	42·0	107·9	31·9	NE	112	0·7	5·7	3·40	...	15
16	30·026	46·7	41·3	56·0	36·0	111·8	27·1	E	177	1·3	5·7	8·55	...	16
17	29·813	46·2	43·0	58·1	37·7	116·6	28·3	ENE	62	1·3	4·7	7·50	...	17
18	29·694	50·2	43·8	63·0	33·6	117·3	25·9	Calm	78	0·3	5·7	8·40	...	18
19	29·792	54·7	47·1	64·4	37·9	128·6	27·9	SSE	110	0·7	1·0	9·20	...	19
20	29·967	57·6	50·1	69·6	36·1	131·3	26·8	S	82	0·7	2·0	11·25	...	20
21	30·076	59·1	50·2	69·9	39·1	123·4	30·3	E	123	1·0	1·0	11·25	...	21
22	30·143	58·2	50·2	70·0	41·3	130·2	31·8	ENE	215	1·3	1·0	13·35	...	22
23	30·170	54·1	47·0	66·2	41·6	126·2	32·3	NE	355	3·0	0·3	13·65	...	23
24	30·078	54·2	47·3	65·9	41·2	127·2	36·7	NNE	268	3·3	1·0	13·25	...	24
25	29·996	48·2	44·7	56·9	37·0	117·8	26·0	NE	269	2·0	1·7	13·60	...	25
26	29·758	48·7	45·1	59·5	40·0	114·6	34·9	NNE	262	2·3	4·0	8·75	...	26
27	29·628	44·8	42·4	60·3	39·6	113·7	34·4	NE	270	2·3	6·3	6·75	...	27
28	29·737	48·5	42·5	58·3	38·8	123·0	33·1	NNE	233	2·3	4·3	11·20	...	28
29	29·902	45·9	40·8	52·9	36·0	106·0	25·8	N	168	2·0	8·3	3·60	...	29
30	30·072	46·8	42·0	55·5	32·1	127·9	20·3	NE	89	0·7	3·0	8·95	...	30
Mean or Sum.	29·932	49·08	44·21	58·49	38·80	116·79	31·28	...	7026	2·12	4·68	239·10	0·020	Mean or Sum.

Weather.

1. Cloudy 10^h a.m. till evening. 2. Fine till afternoon. 3. Very fine. 4. Overcast except afternoon. 5. Overcast till noon. 6. Fair to very fine. 7. Fair. 8. Fine after 2½^h p.m.; gale midday. 9. Fine; slight rain after 10^h p.m. 10. Fair; slight shower 8^h a.m. 11. Fine generally. 12. Fine generally. 13. Overcast generally. 14. Cloudy. 15. Cloudy to fine night. 16. Cloudy to fine. 17. Fine after 10^h a.m. 18. Fine generally. 19. Fine. 20. Very fine generally. 21. Very fine till 3^h p.m. 22. Very fine. 23. Very fine. 24. Very fine. 25. Very fine. 26. Very fine after 9½^h a.m. 27. Very fine after 11^h a.m. 28. Fine till evening. 29. Cloudy generally. 30. Fine to fair.

MAY, 1912.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·952	51·4	46·4	61·0	35·2	121·8	24·7	W S W	202	1·3	5·7	7·50	...	1
2	29·805	55·4	51·1	63·0	50·1	109·0	45·6	W S W	208	1·3	8·3	0·75	...	2
3	29·754	55·0	51·8	60·6	46·2	106·6	38·8	W N W	91	1·0	9·3	0·35	0·101	3
4	29·778	47·0*	46·5	55·5	47·8*	56·5	47·6	E	124	1·0	10·0	0·00	0·297	4
5	29·765	52·5	50·4	59·5	46·0	99·8	46·0	S E	169	1·3	9·7	0·45	0·031	5
6	29·813	55·9	52·3	62·1	51·0	117·8	48·1	S W	265	1·7	9·3	2·40	0·017	6
7	29·882	56·7	54·9	60·9	52·8	104·1	49·7	S S W	327	3·3	10·0	0·00	0·042	7
8	30·091	60·5	57·5	66·8	55·8	121·2	52·9	W S W	200	2·3	8·0	2·45	...	8
9	30·047	62·5	58·1	71·7	54·7	123·2	48·9	W	152	1·0	8·3	6·10	...	9
10	29·867	60·9	54·0	69·9	52·8	127·7	49·1	E	192	1·7	6·0	5·50	...	10
11	29·566	64·2	57·4	77·0	53·9	133·2	49·2	S S W	233	3·0	8·0	10·05	...	11
12	29·601	55·8	52·3	63·5	52·2	114·0	48·1	N	177	2·0	8·0	2·35	0·016	12
13	29·915	56·5	50·4	64·0	44·9	125·3	39·1	S E	108	1·0	5·7	10·70	...	13
14	29·680	59·8	51·6	69·7	46·2	125·5	39·2	S E	127	1·3	5·7	6·90	...	14
15	29·288	53·9	53·0	64·4	51·1	106·8	46·7	Var.	289	1·3	10·0	0·15	0·441	15
16	29·512	48·6	43·4	55·3	44·2	121·6	41·1	W N W	259	3·7	6·0	7·65	0·085	16
17	29·797	52·7	47·2	60·4	42·6	114·1	34·0	W	263	3·3	4·3	4·75	...	17
18	29·765	54·7	50·9	61·5	47·9	121·3	42·1	W S W	119	1·7	9·3	1·50	...	18
19	29·774	57·3	51·5	65·7	45·3	132·0	38·1	W S W	115	0·7	6·3	7·20	...	19
20	29·543	56·1	50·7	65·0	51·0	125·6	44·9	S S W	188	1·7	9·3	5·80	...	20
21	29·514	53·2	50·2	58·2	45·6	98·0	37·9	S	121	1·0	9·7	0·65	0·322	21
22	29·336	54·3	52·4	63·1	51·8	129·5	50·0	S	211	1·7	9·3	4·30	0·622	22
23	29·524	47·1*	45·7	52·7	47·3*	63·0	47·9	N N W	256	1·0	10·0	0·00	0·033	23
24	29·966	50·2	45·7	58·7	45·1	123·2	42·1	N N E	89	2·3	4·3	9·50	...	24
25	30·113	52·5	47·0	60·5	45·3	116·5	39·5	N E	55	1·0	6·3	6·30	...	25
26	29·960	54·4	49·7	62·5	46·0	126·7	39·0	Var.	55	1·0	6·0	4·20	...	26
27	29·819	57·9	50·8	67·2	41·0	128·4	34·9	W N W	127	1·3	3·3	13·25	...	27
28	29·746	57·6	50·7	67·6	45·3	126·7	37·6	N W	97	1·0	4·3	9·25	...	28
29	29·658	60·1	53·4	68·4	43·0	127·4	34·8	W	72	1·0	3·0	8·75	...	29
30	29·559	60·2	52·9	68·6	51·9	128·0	47·6	S S E	130	1·3	4·3	7·55	...	30
31	29·579	53·2	51·0	62·3	50·1	122·9	47·3	E S E	57	1·0	7·0	3·65	0·165	31
Mean or Sum.	29·741	55·42	51·00	63·46	47·87	116·05	42·98	...	5078	1·59	7·25	149·95	2·172	Mean or Sum.

Weather.

1. Fine till afternoon. 2. Overcast generally. 3. Overcast. 4. Frequent light rain. 5. Overcast. 6. Cloudy generally. 7. Light rain at times. 8. Cloudy generally. 9. Fine to overcast evening. 10. Fine to overcast. 11. Fine to overcast evening. 12. Cloudy; showers afternoon; thunder $3\frac{1}{4}^{h}$ p.m. 13. Fine till evening. 14. Fine. 15. Rain in morning and evening. 16. Variable; showery; hail and thunder afternoon. 17. Fine generally. 18. Cloudy. 19. Fine till afternoon. 20. Cloudy generally. 21. Overcast generally; rain after 7^{h} p.m. 22. Overcast to fine intervals; rain at times. 23. Overcast. 24. Fine to cloudy. 25. Cloudy to fine. 26. Fair. 27. Fine. 28. Fine generally. 29. Fine; thunder 4^{h} 25^{m} p.m.; lightning after $10\frac{1}{2}^{h}$ p.m. 30. Cloudy to fine. 31. Rain early morning; cloudy and showery till 7^{h} p.m.; fine after; frequent thunder afternoon, with lightning $2\frac{1}{4}^{h}$ p.m.

* See 'Introduction.'

JUNE, 1912.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·405	56·7	53·6	64·7	43·1	106·4	38·7	ENE	98	1·0	7·7	2·35	0·072	1
2	29·217	54·1	52·5	60·5	53·2	112·2	48·6	SE	127	1·7	6·7	1·50	0·154	2
3	29·256	53·0	50·2	57·6	41·9	91·4	35·3	SW	256	1·7	9·0	0·45	0·018	3
4	29·152	51·7	48·2	58·7	46·8	125·6	41·3	WSW	187	1·3	4·7	3·25	0·169	4
5	29·308	52·1	48·9	63·5	45·1	137·4	42·9	W	180	2·0	10·0	4·45	0·348	5
6	29·510	57·1	53·3	66·4	49·3	124·8	46·5	SW	110	1·3	3·7	9·45	0·012	6
7	29·590	52·8	52·2	58·7	47·6	73·9	42·9	N	53	0·7	10·0	0·00	0·388	7
8	29·678	54·7	52·2	62·5	51·9	123·0	51·7	WNW	121	1·0	9·0	2·40	0·239	8
9	29·700	57·6	53·2	64·5	48·6	118·0	43·1	S	140	1·0	7·0	5·25	0·041	9
10	29·553	55·8	51·3	62·4	50·1	130·1	49·1	S	156	1·0	7·3	8·10	0·836	10
11	29·506	60·5	54·0	68·1	43·3	132·5	38·2	NE	215	2·3	5·7	12·35	0·004	11
12	29·653	56·4	53·7	62·4	54·1	98·6	52·3	NNE	149	2·3	8·3	0·20	0·014	12
13	29·623	57·4	52·7	65·4	47·2	124·3	40·8	WSW	262	3·0	7·0	8·45	0·030	13
14	29·649	59·0	53·8	67·2	48·9	137·7	45·3	WSW	330	2·0	5·3	6·75	...	14
15	29·651	57·2	51·3	64·2	48·7	133·1	44·4	WSW	387	4·7	6·7	8·70	0·018	15
16	29·577	54·0	50·8	63·7	49·6	131·9	47·7	WNW	179	3·0	7·3	7·30	0·476	16
17	29·789	56·5	54·1	62·0	49·2	115·2	43·9	WSW	369	2·0	10·0	0·10	0·055	17
18	29·764	63·1	59·5	71·4	57·5	134·7	57·0	WSW	202	3·3	8·7	7·90	...	18
19	29·612	64·6	59·9	76·1	53·6	137·4	53·9	SSW	353	2·7	6·3	6·75	0·025	19
20	29·798	58·7	53·7	65·7	52·5	126·8	47·8	WSW	278	4·7	7·3	5·15	...	20
21	29·805	60·3	54·8	67·0	53·0	126·2	48·2	SW	256	2·3	5·7	10·10	...	21
22	29·642	68·7	60·7	77·9	51·4	138·4	48·2	SSE	260	2·0	3·0	13·50	...	22
23	29·631	61·2	55·0	72·3	57·8	132·2	54·8	SW	348	3·0	4·7	12·55	...	23
24	29·712	60·7	55·0	67·7	53·5	132·1	49·9	SW	335	3·0	5·0	13·00	...	24
25	29·540	55·3	53·5	65·3	51·2	120·7	45·4	S	387	4·7	10·0	5·00	0·177	25
26	29·715	59·3	54·6	68·5	53·6	131·1	49·8	WSW	259	3·3	7·3	7·80	0·002	26
27	29·842	58·6	53·7	64·6	52·0	119·2	46·4	S	281	2·3	8·3	4·65	...	27
28	29·618	58·9	54·4	67·2	55·6	133·0	53·1	SSW	299	3·0	6·0	7·85	0·058	28
29	29·544	56·0	53·7	63·0	51·4	121·4	45·7	SW	141	2·3	9·0	2·35	0·111	29
30	29·607	56·4	53·5	63·3	49·0	115·1	42·6	WSW	152	1·3	10·0	0·65	0·015	30
Mean or Sum.	29·588	57·61	53·60	65·42	50·36	122·81	46·52	...	6870	2·33	7·22	178·30	3·262	Mean or Sum.

Weather.

1. Fine morning, then showery. 2. Rain till afternoon, then fine. 3. Overcast generally. 4. Fine intervals; rain at times. 5. Fine intervals; rain morning and evening. 6. Fine till evening; rain 6^h–7^h p.m. 7. Rain after noon. 8. Cloudy; rain in morning. 9. Cloudy to fine. 10. Fair; heavy rain 2^h a.m.; shower $10\frac{1}{2}^h$ a.m. 11. Fine. 12. Overcast to fine night. 13. Cloudy to fine. 14. Fine to cloudy. 15. Fine till afternoon. 16. Variable; showery; hail, lightning and thunder about $11\frac{1}{2}^h$ a.m. 17. Slight rain after noon. 18. Overcast to fine. 19. Fine at times; slight thunderstorm 10^h a.m. 20. Fair. 21. Cloudy to fine. 22. Very fine generally; lightning after $10\frac{1}{2}^h$ p.m. 23. Fine. 24. Fine. 25. Rain till 2^h p.m., then fair. 26. Fine to cloudy. 27. Cloudy generally. 28. Fine after 9^h a.m. 29. Cloudy; showers. 30. Overcast; slight rain in evening.

JULY, 1912.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·636	56·3	53·2	65·9	53·8	127·9	51·4	NW	211	2·0	10·0	4·30	0·047	1
2	29·676	54·3	51·7	60·2	52·3	100·3	51·0	NNW	196	1·0	10·0	0·10	0·424	2
3	29·703	55·8	53·9	62·5	51·6	106·4	51·3	NE	214	1·3	9·7	0·95	0·056	3
4	30·012	55·3	53·2	60·5	54·1	108·1	50·8	NE	164	2·0	9·0	0·25	...	4
5	29·988	59·2	56·2	65·9	48·8	106·6	43·0	NE	253	1·7	9·0	1·35	...	5
6	29·751	62·5	58·4	72·7	55·1	127·5	53·0	NNE	140	2·0	7·7	7·05	0·229	6
7	29·716	60·4	56·6	73·1	54·4	126·1	54·8	WNW	223	2·0	7·7	5·20	0·055	7
8	29·812	59·3	54·5	66·4	53·6	111·7	49·4	SW	174	3·0	6·3	3·40	0·004	8
9	29·874	60·1	54·6	69·9	45·2	127·0	38·4	SSW	177	0·7	5·3	9·25	...	9
10	29·715	65·2	60·0	75·2	57·4	138·4	54·3	S	285	2·7	8·0	4·60	...	10
11	29·765	64·0	61·0	72·6	59·7	131·0	56·8	S	185	2·3	6·7	6·40	...	11
12	29·654	71·4	64·3	84·5	57·0	139·0	49·3	S	163	1·7	6·0	9·35	0·055	12
13	29·792	64·9	63·0	71·8	57·5	125·1	55·5	WNW	162	0·7	7·3	1·75	0·120	13
14	29·818	66·5	64·1	78·2	60·6	125·0	58·4	N	131	1·3	7·0	6·10	...	14
15	29·906	72·9	65·8	86·6	59·8	135·0	56·8	NE	189	1·3	0·0	11·50	...	15
16	29·873	72·3	65·0	84·6	59·0	134·6	55·9	NE	266	1·7	0·0	12·55	...	16
17	29·837	64·1	59·1	76·4	56·0	126·1	53·1	NE	184	3·0	0·3	12·50	...	17
18	29·718	59·3	55·4	68·9	52·3	114·6	47·5	NNW	287	1·0	9·7	1·85	...	18
19	29·666	54·2	49·6	58·7	45·9	108·1	39·9	NW	167	2·3	4·7	2·60	0·051	19
20	29·643	56·9	54·2	65·7	50·5	126·6	42·9	NE	48	1·0	9·7	3·00	0·145	20
21	29·683	60·8	58·6	69·5	56·5	126·2	56·4	SW	59	0·7	9·3	1·95	0·117	21
22	29·730	58·9	57·6	64·6	53·8	93·1	49·0	NE	93	1·0	8·7	0·00	0·118	22
23	29·680	61·1	58·9	68·5	55·2	117·0	52·5	ENE	62	0·7	9·7	1·05	0·788	23
24	29·674	64·2	60·0	73·4	56·1	126·6	52·0	SSE	85	1·0	9·0	2·55	0·011	24
25	29·612	65·0	59·0	72·7	57·9	136·7	51·8	S	163	1·7	3·7	7·95	...	25
26	29·672	62·7	57·9	71·6	53·3	128·4	46·0	S	145	1·7	7·7	4·20	...	26
27	29·450	65·4	61·1	73·5	58·5	129·2	56·0	SSE	287	1·0	6·0	5·85	0·303	27
28	29·347	59·1	54·9	66·3	57·0	114·9	54·1	SSW	425	4·3	4·7	4·00	0·030	28
29	29·350	56·2	53·4	61·5	53·1	105·0	51·9	SSW	391	5·0	8·7	0·20	0·195	29
30	29·466	57·8	53·7	65·4	52·0	115·6	48·1	SW	249	3·0	6·0	5·90	...	30
31	29·370	55·4	54·4	62·5	50·7	75·0	46·1	S	391	2·3	10·0	0·10	0·345	31
Mean or Sum.	29·696	61·34	57·53	69·99	54·47	119·77	50·88	...	6169	1·84	7·02	137·80	3·093	Mean or Sum.

Weather.

1. Cloudy; slight rain midday. 2. Rain after noon. 3. Overcast; slight rain in morning. 4. Overcast. 5. Generally overcast. 6. Fine morning, then overcast; thunderstorms $2\frac{1}{2}^h$–4^h p.m. 7. Fine to cloudy; heavy shower 4^h p.m. 8. Overcast till 3^h p.m. 9. Fine till 4^h p.m. 10. Fair. 11. Overcast till noon. 12. Fine to cloudy; thunderstorm 3^h–4^h p.m. 13. Cloudy; rain 11^h a.m.–2^h p.m. 14. Very fine after noon; lightning 11^h p.m. 15. Very fine after $7\frac{1}{2}^h$ a.m. 16. Very fine. 17. Very fine. 18. Overcast to cloudy. 19. Fine to overcast; slight rain at times. 20. Fine morning, then rain. 21. Fair afternoon. 22. Rain in afternoon. 23. Generally overcast; thunderstorm with heavy rain 2^h p.m. 24. Cloudy. 25. Fair to fine. 26. Fair. 27. Fine generally; thunderstorms $0\frac{1}{2}^h$ a.m.–$1\frac{3}{4}^h$ a.m. and $11\frac{1}{4}^h$ p.m. 28. Fair; showers 1^h and 3^h p.m. 29. Overcast; squally; rain $1\frac{1}{4}^h$–$2\frac{1}{4}^h$ p.m. 30. Fair; thunder $0\frac{1}{2}^h$ p.m. 31. Frequent rain.

AUGUST, 1912.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·333	55·8	51·5	63·6	50·6	119·9	46·9	WSW	184	3·3	6·0	5·90	0·013	1
2	29·592	54·7	50·0	63·4	45·9	125·3	42·0	WNW	85	1·0	5·0	6·40	...	2
3	29·678	54·9	50·0	63·1	41·1	114·4	35·6	E	196	1·0	6·0	4·00	0·040	3
4	29·289	58·8	55·6	69·0	54·1	127·9	52·9	SSE	491	3·7	9·0	3·55	0·192	4
5	29·474	57·8	51·7	63·3	51·2	121·2	47·8	SSW	323	4·7	6·0	8·00	0·023	5
6	29·083	54·6	52·3	58·0	53·1	100·1	51·7	SE	348	3·3	7·3	2·05	0·594	6
7	29·248	56·8	54·2	64·5	51·2	117·9	49·8	SW	260	2·0	6·7	3·20	0·460	7
8	29·530	56·7	54·0	65·5	52·4	118·9	48·9	WSW	172	1·7	7·7	2·45	0·099	8
9	29·607	56·6	52·3	62·7	49·9	117·8	47·9	WSW	168	1·0	6·3	3·15	0·010	9
10	29·588	53·8	51·9	62·6	49·1	118·0	46·1	WSW	181	1·0	7·7	2·50	0·303	10
11	29·866	54·9	51·4	61·8	44·7	116·7	39·9	W	86	1·3	4·3	2·50	0·032	11
12	29·672	53·7	50·0	61·8	42·0	109·8	36·7	NNE	255	1·7	6·7	3·55	0·013	12
13	29·570	53·7	49·6	60·6	44·7	105·4	41·0	NW	220	2·0	7·7	1·60	0·004	13
14	29·457	52·4	50·0	59·5	45·5	113·4	40·8	WSW	290	2·0	6·3	2·55	0·138	14
15	29·551	54·5	52·6	60·3	51·1	80·9	48·2	WSW	289	2·7	10·0	0·00	0·004	15
16	29·766	58·8	55·2	65·3	50·0	108·7	46·0	SW	303	3·0	8·7	0·70	...	16
17	29·679	58·7	57·1	62·0	57·1	82·0	52·7	SSW	270	3·3	10·0	0·00	0·276	17
18	29·428	56·7	53·3	62·2	54·8	111·0	51·6	SSW	255	1·3	8·7	2·15	0·220	18
19	29·333	56·2	54·5	62·0	53·0	107·0	49·0	S	352	2·3	10·0	2·00	0·302	19
20	29·394	55·5	52·9	63·5	51·9	117·1	49·0	SW	319	3·7	8·3	3·05	0·179	20
21	29·753	53·7	50·7	58·2	46·0	113·0	39·8	SW	247	2·3	7·0	3·60	0·088	21
22	29·870	54·6	50·3	61·8	46·5	118·1	41·5	W	295	2·7	5·0	7·10	0·035	22
23	29·501	58·7	57·5	63·2	51·4	72·7	50·8	SW	400	5·0	10·0	0·00	0·243	23
24	29·362	59·1	58·5	65·3	58·1	103·4	55·0	SW	104	0·7	8·0	0·55	0·418	24
25	29·411	58·1	55·1	65·4	52·7	112·0	47·0	SSW	69	1·0	8·3	1·30	...	25
26	29·090	52·8	52·3	59·5	51·9	62·8	50·7	WNW	202	1·3	10·0	0·00	0·799	26
27	29·407	52·2	48·8	60·1	48·2	113·5	44·5	NW	95	1·3	5·3	5·35	...	27
28	29·597	54·1	50·6	62·1	41·7	115·5	35·5	SSE	279	0·7	6·7	4·40	0·091	28
29	29·299	59·3	55·8	66·5	55·5	123·4	44·5	SW	268	3·7	8·0	5·60	0·290	29
30	29·517	58·4	54·6	66·3	55·0	119·9	49·8	W	162	1·3	6·0	3·45	...	30
31	29·887	55·8	51·4	63·5	47·3	116·6	40·3	WSW	183	1·0	6·3	7·05	...	31
Mean or Sum.	29·511	55·88	52·76	62·79	49·93	109·82	45·93	...	7351	2·16	7·39	97·70	4·866	Mean or Sum.

Weather.

1. Fair to fine; shower 5½ʰ p.m. 2. Fair. 3. Fair morning; rain in evening. 4. Fair midday; rain early. 5. Fine generally; squally. 6. Fine 6½ʰ a.m.–8½ʰ a.m., otherwise rainy. 7. Cloudy; showery; thunder midday. 8. Cloudy; showery; lightning and thunder afternoon. 9. Fair to overcast; thunder 1ʰ p.m. 10. Cloudy; shower with hail and thunder 11ʰ a.m.; thunderstorm 5ʰ–6ʰ p.m. 11. Fair intervals; showers. 12. Fine to overcast. 13. Cloudy. 14. Fine till 10ʰ a.m., then showery. 15. Overcast. 16. Overcast. 17. Occasional rain or drizzle. 18. Fair intervals. 19. Showery; thunderstorm with hail noon. 20. Fair to cloudy; rain at night. 21. Fine to overcast; showers night. 22. Very fine to fair. 23. Rain in morning; squally at times. 24. Rainy till 1ʰ p.m., then cloudy. 25. Cloudy. 26. Rainy. 27. Fine generally. 28. Fine to overcast. 29. Rain morning, then fine. 30. Cloudy generally. 31. Fine.

SEPTEMBER, 1912.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·704	56·2	53·8	61·6	51·9	104·6	48·9	WNW	163	1·0	9·3	0·55	0·091	1
2	29·701	54·0	49·5	58·8	52·0	112·1	45·0	NW	168	2·0	5·3	5·65	0·049	2
3	29·916	53·3	50·7	59·3	44·8	82·2	36·3	SW	381	1·7	10·0	0·00	...	3
4	29·749	59·0	54·6	64·7	55·0	126·0	48·4	WSW	326	3·3	6·0	7·20	0·021	4
5	29·776	52·4	48·3	57·6	47·6	115·3	41·5	WSW	313	3·0	8·0	3·50	0·024	5
6	29·755	54·0	48·5	59·4	43·1	124·7	37·0	WNW	324	4·0	5·7	7·25	...	6
7	29·988	54·0	49·5	60·7	44·0	123·6	36·7	W	294	2·3	8·3	5·05	...	7
8	29·892	59·6	56·0	66·3	53·1	129·0	50·4	W	264	3·0	8·3	1·90	0·029	8
9	29·992	48·1	43·5	58·5	45·0	109·0	41·0	N	173	1·7	0·3	7·95	0·006	9
10	29·910	48·6	45·5	53·4	41·5	81·4	36·9	NNW	245	1·3	10·0	0·05	...	10
11	29·903	48·9	44·8	52·1	43·9	99·4	38·8	NNW	316	3·3	9·7	1·25	...	11
12	30·132	53·8	50·4	61·1	49·5	115·9	48·4	NNE	93	1·7	5·3	2·45	...	12
13	30·199	50·8	48·8	60·6	43·7	113·8	36·9	Calm	107	0·3	6·0	2·85	...	13
14	30·051	55·5	53·4	59·8	46·0	91·1	38·3	NW	144	1·3	10·0	0·15	...	14
15	29·985	55·5	52·2	62·3	53·8	113·7	46·3	NW	41	1·3	6·3	3·95	...	15
16	30·020	53·2	52·1	62·1	49·8	85·8	45·0	WNW	55	0·7	6·7	1·50	...	16
17	30·066	53·1	51·4	57·5	48·2	66·6	42·2	NNW	47	0·7	10·0	0·00	...	17
18	30·189	51·8	48·8	63·9	43·1	112·9	36·7	NE	142	1·0	2·0	6·05	...	18
19	30·224	49·8	46·5	53·2	44·2	71·2	36·2	NE	158	1·0	10·0	0·00	...	19
20	30·166	50·8	47·7	58·1	46·6	86·0	36·0	ENE	167	1·3	6·3	1·30	...	20
21	30·179	49·1	45·1	59·6	39·8	115·0	33·9	ENE	184	1·7	1·7	9·70	...	21
22	30·168	49·9	45·4	60·6	37·8	108·6	30·8	ENE	197	2·0	0·0	9·75	...	22
23	30·188	52·9	49·6	61·8	43·2	112·0	36·0	ENE	156	1·7	4·7	6·05	...	23
24	30·117	50·8	48·0	59·7	44·6	102·8	36·8	NNE	131	1·3	6·3	1·85	...	24
25	29·958	48·1	44·0	54·5	39·1	85·6	30·2	E	148	1·3	7·3	0·70	...	25
26	29·905	49·8	44·6	57·5	39·2	103·6	29·5	E	194	1·7	0·7	8·90	...	26
27	29·866	49·3	44·7	59·5	39·9	107·2	30·2	E	256	1·7	3·0	8·45	...	27
28	29·647	52·1	48·2	58·3	42·9	105·8	34·5	ENE	241	3·3	7·3	3·95	0·036	28
29	29·512	54·5	52·1	60·5	50·9	107·5	47·7	SE	268	2·3	7·7	3·25	0·156	29
30	29·086	53·9	52·6	59·5	52·0	105·0	50·3	S	205	1·3	10·0	1·15	0·765	30
Mean or Sum.	29·931	52·43	49·01	59·42	45·87	103·91	39·56	...	5901	1·81	6·41	112·35	1·177	Mean or Sum.

Weather.

1. Generally overcast; rain early. 2. Rain early, then fine. 3. Overcast. 4. Slight rain early, then fine. 5. Variable; showery. 6. Very fine till 3h p.m., then cloudy. 7. Fine to cloudy. 8. Cloudy; rain 10½h p.m.–11½h p.m. 9. Fine; hazy. 10. Overcast. 11. Fine 8½h a.m.–10h a.m., otherwise overcast. 12. Cloudy to fine night. 13. Fine generally after noon. 14. Dull. 15. Fair to fine. 16. Overcast till afternoon, then fair. 17. Generally overcast. 18. Very fine generally. 19. Overcast. 20. Overcast till afternoon, then fine. 21. Very fine generally. 22. Very fine. 23. Fine to very fine. 24. Fair intervals midday, otherwise overcast. 25. Cloudy. 26. Very fine. 27. Very fine generally. 28. Cloudy to fine till evening, then slight rain. 29. Fair midday, otherwise overcast; showery. 30. Fine intervals afternoon; rain morning and night.

OCTOBER, 1912.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·141	52·6	50·0	60·5	44·6	105·6	39·8	Var.	172	2·3	9·3	1·55	0·598	1
2	29·507	45·0	42·2	51·7	41·6	65·5	34·2	N N E	200	1·3	6·7	0·65	0·041	2
3	30·025	41·4	38·5	51·2	34·2	102·5	28·3	N	108	2·0	0·7	8·25	...	3
4	30·398	40·9	38·5	53·3	31·6	100·3	23·8	Calm	15	0·3	0·3	8·10	...	4
5	30·238	42·2	39·4	56·5	28·1	104·0	22·2	S	99	0·7	3·3	7·35	...	5
6	30·089	43·4	41·0	57·5	31·2	104·8	24·5	Nearly Calm	53	0·3	2·0	6·90	...	6
7	30·042	44·6	42·7	60·3	33·8	110·6	26·4	Calm	30	0·3	0·7	9·00	...	7
8	30·019	45·4	41·9	59·2	31·0	104·7	26·2	S E	85	1·0	0·0	7·95	...	8
9	30·028	47·4	43·9	62·5	37·0	104·1	28·0	N E	95	1·0	0·0	6·55	0·010	9
10	30·054	49·6	47·4	61·5	40·6	96·2	31·1	Calm	25	0·3	0·0	6·75	0·006	10
11	30·021	43·2	41·7	60·7	31·0	101·2	26·4	S S E	9	0·7	0·0	6·20	0·003	11
12	30·039	44·5	42·9	58·1	32·6	101·6	28·0	Calm	103	0·3	0·7	5·75	...	12
13	29·998	53·9	51·4	61·5	46·6	105·9	33·5	S S W	251	1·0	7·0	4·45	...	13
14	29·963	56·2	53·4	63·4	50·8	112·9	43·1	W S W	116	3·0	6·7	0·60	...	14
15	30·101	44·4	41·3	55·0	32·6	97·6	28·4	S	81	0·7	3·3	5·40	...	15
16	29·791	46·7	45·1	55·5	34·0	88·6	26·3	S W	279	1·3	6·3	2·40	0·044	16
17	29·953	48·2	45·1	56·5	42·2	102·2	34·0	W	131	1·3	1·0	5·15	0·003	17
18	30·023	48·2	46·7	54·6	37·9	99·1	31·1	S S W	242	1·7	6·3	1·10	0·002	18
19	29·887	48·3	45·1	56·7	44·4	106·3	34·2	W	303	2·0	3·0	7·50	0·018	19
20	29·405	50·9	48·3	54·9	45·4	88·6	40·0	S W	313	4·3	7·7	1·40	0·241	20
21	29·053	40·0	38·7	49·7	36·8	77·0	31·1	S W	194	2·3	6·7	1·70	0·283	21
22	29·212	42·1	41·1	48·6	38·6	83·3	31·5	N	62	1·7	6·3	0·40	0·120	22
23	29·168	40·8	40·4	47·4	33·7	80·7	30·0	Calm	45	0·3	8·0	0·40	0·027	23
24	29·131	41·8	40·8	50·2	37·8	90·6	30·3	Calm	12	0·3	6·7	2·80	...	24
25	29·322	39·0	38·5	49·5	31·8	83·8	27·4	Calm	28	0·0	4·7	3·80	0·005	25
26	29·423	45·1	44·4	57·0	30·8	56·1	27·0	S S E	430	2·0	10·0	0·00	0·408	26
27	29·435	55·6	54·5	57·5	55·2	62·0	53·5	S S W	459	4·0	10·0	0·00	0·337	27
28	29·233	55·0	53·3	58·5	52·3	84·0	51·0	S S W	484	3·0	9·7	0·20	0·385	28
29	29·252	53·4	49·7	57·9	51·1	98·5	46·0	S S W	338	4·7	3·7	5·60	0·032	29
30	29·080	49·1	46·8	53·4	46·4	91·1	42·3	S S W	362	3·3	5·0	3·00	0·604	30
31	29·481	46·7	44·0	51·3	43·6	89·4	39·8	N W	228	3·0	10·0	1·25	0·009	31
Mean or Sum.	29·694	46·63	44·47	55·87	39·01	93·51	32·88	...	5352	1·63	4·70	122·15	3·176	Mean or Sum.

Weather.

1. Cloudy; rain in evening. 2. Overcast till evening. 3. Very fine. 4. Very fine. 5. Very fine; fog early. 6. Very fine generally. 7. Very fine; fog early. 8. Very fine. 9. Very fine; fog till 10^h a.m. 10. Very fine; fog early. 11. Very fine; fog early. 12. Very fine; fog early. 13. Fine till afternoon. 14. Cloudy. 15. Fair to fine. 16. Overcast after 10^h a.m.; rain evening. 17. Fine. 18. Very fine early, then cloudy; fog 6^h–10^h a.m. 19. Very fine till afternoon. 20. Cloudy; rain after 6^h p.m. 21. Overcast after 10^h a.m.; rain in evening. 22. Overcast; rain at times. 23. Overcast; fog morning; rain evening. 24. Fine after 11^h a.m.; fog morning and evening. 25. Fine till evening; fog morning. 26. Rain 10^h a.m.–6^h p.m. 27. Rain or drizzle. 28. Overcast; rain after 6^h p.m. 29. Fine to fair; shower 2½^h p.m. 30. Fine intervals; showery; heavy rain 5^h–6^h a.m.; thunderstorm 5½^h p.m. 31. Fine 9^h–10½^h a.m. and after 8½^h p.m.

NOVEMBER, 1912.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	30·143	38·2	35·0	44·9	32·8	88·4	25·7	N W	105	1·0	3·3	6·30	...	1
2	30·121	37·9	35·4	47·3	32·6	93·6	25·0	W	65	1·0	1·7	5·60	...	2
3	30·107	34·3	33·0	44·1	27·9	67·9	21·9	Calm	54	0·3	5·7	1·35	...	3
4	30·018	46·4	43·8	51·9	32·2	87·6	26·8	S W	268	1·7	8·3	0·95	0·019	4
5	29·662	49·7	48·8	52·1	44·7	64·4	41·9	Var.	82	1·0	10·0	0·00	0·232	5
6	29·996	50·7	49·8	53·2	48·3	59·1	46·0	Calm	86	0·3	10·0	0·00	...	6
7	30·128	52·1	50·5	55·1	49·0	70·6	47·0	S W	243	1·7	9·3	0·05	...	7
8	30·137	52·4	51·1	54·2	51·4	65·0	50·6	S W	206	1·7	10·0	0·00	...	8
9	29·899	50·8	48·5	55·8	47·6	98·3	40·9	S S W	252	1·3	6·3	1·80	...	9
10	29·578	46·6	43·9	50·7	41·7	65·6	34·9	W S W	489	3·3	6·0	0·05	0·155	10
11	29·195	41·1	38·0	49·3	39·2	75·4	34·1	W N W	432	5·3	6·7	1·45	0·050	11
12	29·288	39·6	36·7	42·5	37·0	59·0	32·0	N N W	487	5·0	6·3	0·15	0·059	12
13	29·435	40·3	37·8	42·6	35·8	60·1	31·0	N N W	405	4·3	10·0	0·20	0·006	13
14	29·755	40·0	37·2	43·0	38·1	50·5	33·8	N W	139	2·3	8·3	0·00	...	14
15	29·917	42·2	40·9	47·9	36·5	59·6	31·7	W	21	1·0	8·3	0·00	...	15
16	29·959	46·8	45·8	49·7	43·9	54·7	40·8	Calm	66	0·3	10·0	0·00	0·010	16
17	29·909	46·4	45·1	52·2	43·3	93·7	36·7	W	94	1·3	8·0	1·10	0·036	17
18	29·873	41·8	40·6	47·5	36·9	64·6	29·0	N W	144	0·7	7·3	0·20	0·010	18
19	29·882	42·7	41·0	48·9	35·4	61·8	29·2	W S W	299	2·0	9·7	0·15	...	19
20	29·875	45·4	42·8	48·4	41·1	60·7	35·9	W S W	182	2·7	7·7	0·00	0·028	20
21	29·992	50·7	49·1	54·3	46·3	61·5	42·5	W N W	134	1·0	10·0	0·00	...	21
22	30·135	47·3	46·2	52·7	42·9	74·7	37·6	W S W	193	1·0	7·3	1·10	...	22
23	30·038	49·5	47·9	51·5	47·1	57·0	45·8	S S W	306	2·0	10·0	0·00	...	23
24	29·972	44·8	42·1	50·5	40·2	90·8	34·4	W S W	460	3·0	3·3	6·60	0·104	24
25	29·677	47·7	45·0	51·4	42·4	56·6	38·2	S W	422	5·0	9·7	0·00	0·207	25
26	29·152	49·9	47·9	53·3	41·4	57·1	35·8	S S W	449	6·0	10·0	0·00	0·408	26
27	29·168	35·8	34·8	46·5	33·4	70·1	27·6	W	107	1·7	6·3	2·80	0·079	27
28	29·499	35·1	33·7	38·4	29·6	71·1	23·8	S S W	228	1·3	4·7	1·35	0·006	28
29	29·060	35·9	35·1	42·6	33·1	42·3	27·3	N N W	271	2·0	6·0	0·00	0·440	29
30	29·384	30·6	28·5	33·5	27·9	55·2	22·3	N	196	1·7	8·3	0·40	...	30
Mean or Sum.	29·765	43·76	41·87	48·53	39·32	67·90	34·34	...	6885	2·10	7·62	31·60	1·849	Mean or Sum.

Weather.

1. Very fine till 7^h p.m. 2. Very fine. 3. Fine to cloudy. 4. Fine intervals forenoon. 5. Gloomy; rain in early morning. 6. Overcast; gloomy. 7. Cloudy to overcast. 8. Overcast. 9. Cloudy to fine night. 10. Overcast till 7½^h p.m.; rain 5½^h–7¼^h p.m. 11. Variable; rain 8^h–10½^h a.m.; hail 8½^h a.m. 12. Overcast; fine night; squally. 13. Generally overcast. 14. Overcast till evening. 15. Overcast. 16. Overcast; dull. 17. Overcast to fair. 18. Cloudy to fine after noon. 19. Fine intervals after noon. 20. Overcast. 21. Overcast. 22. Fine to overcast after 11^h a.m. 23. Overcast. 24. Very fine till 7½^h p.m. 25. Rain in afternoon; squally; hail 2¼^h p.m. 26. Frequent rain; gale between 10^h a.m. and 5^h p.m. 27. Cloudy to fine. 28. Fine morning, then overcast. 29. Overcast and dull till 6½^h p.m., then fine; rain early morning. 30. Overcast till noon, then fine.

DECEMBER, 1912.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·493	35·2	33·6	43·5	25·9	42·9	21·0	S W	343	2·7	3·7	0·10	0·198	1
2	29·692	42·1	39·9	46·4	37·7	80·3	32·8	W	209	2·7	3·0	5·30	...	2
3	30·141	40·8	39·3	45·6	33·6	71·3	25·4	S S W	252	1·3	6·7	1·25	0·064	3
4	30·006	49·1	47·8	52·2	44·5	60·9	39·2	S W	170	1·7	9·7	0·00	...	4
5	29·635	40·2	38·0	44·6	38·4	53·2	31·4	S E	255	1·0	7·7	0·00	...	5
6	29·599	46·8	45·3	51·2	41·0	78·7	36·8	S S W	215	2·3	6·0	1·30	0·100	6
7	29·735	47·5	46·9	51·2	38·2	54·9	28·8	S S E	220	2·3	10·0	0·00	0·024	7
8	29·907	50·2	49·4	52·6	48·8	61·0	43·1	S S W	189	1·3	8·3	0·00	0·008	8
9	29·840	48·5	46·7	50·7	42·2	77·0	32·0	S S W	265	3·0	10·0	1·30	0·144	9
10	29·794	44·6	43·8	50·8	41·2	49·4	34·0	Var.	171	0·7	10·0	0·00	0·258	10
11	29·475	49·4	47·5	51·8	42·8	56·6	40·1	S S W	419	4·7	9·0	0·00	0·197	11
12	29·536	41·6	39·8	51·9	39·0	75·9	31·8	S S W	437	2·7	1·7	4·90	0·005	12
13	29·717	50·2	47·9	52·6	40·1	56·0	35·9	S W	763	6·0	9·7	0·00	...	13
14	29·687	54·1	52·0	55·5	52·3	75·3	51·1	S W	563	7·0	9·7	0·70	0·007	14
15	29·845	48·3	46·4	54·7	44·7	75·1	39·0	S W	358	2·7	7·0	0·65	0·142	15
16	29·714	40·5	38·3	50·5	37·0	78·9	30·6	W	274	1·7	3·3	3·85	0·088	16
17	29·606	40·1	38·0	43·2	34·7	74·5	29·7	S W	404	4·0	4·7	5·10	0·008	17
18	29·369	39·0	37·8	45·5	35·8	70·7	30·3	W S W	326	2·3	4·0	3·00	0·131	18
19	29·558	48·1	45·6	50·4	35·8	59·2	30·4	S S W	501	4·0	10·0	0·00	0·012	19
20	29·698	49·8	48·2	51·7	47·3	58·1	45·6	S	225	3·0	9·7	0·00	...	20
21	29·770	46·1	44·4	48·5	44·3	72·0	39·3	S	216	1·7	9·0	1·30	...	21
22	29·646	47·2	45·2	50·9	43·4	87·0	38·7	S	274	1·7	4·3	3·50	0·035	22
23	29·609	49·4	47·9	53·5	46·3	84·6	42·4	S	256	2·0	7·0	3·35	0·313	23
24	29·608	47·5	44·9	51·8	40·8	56·3	35·0	S	465	4·7	8·0	0·00	0·138	24
25	29·612	44·2	43·1	47·7	42·7	48·7	36·7	S	304	2·0	6·0	0·00	0·233	25
26	29·062	45·9	43·6	47·9	38·3	59·2	29·8	S S W	335	4·7	7·0	0·05	0·352	26
27	29·428	46·5	45·2	54·4	40·3	53·2	36·0	S	480	2·3	9·3	0·00	0·170	27
28	29·380	52·3	50·3	55·7	48·8	78·8	45·7	S S W	191	3·3	9·3	0·30	0·247	28
29	29·599	43·3	41·5	50·7	40·8	75·4	39·3	W S W	438	2·7	5·0	2·35	0·511	29
30	30·047	43·2	41·3	46·9	41·1	83·3	35·1	W S W	382	2·7	1·0	5·20	...	30
31	29·877	47·6	44·1	50·3	41·3	78·0	35·2	S S W	330	4·0	9·7	0·30	...	31
Mean or Sum.	29·667	45·78	43·99	50·16	40·94	67·30	35·55	...	10230	2·87	7·08	43·80	3·385	Mean or Sum.

Weather.

1. Fine to overcast; snow $2\frac{1}{2}^h$–$3\frac{1}{2}^h$ p.m., then rain till 7^h p.m. 2. Very fine till 3^h p.m. 3. Fine till 11^h a.m.; rain after 7^h p.m. 4. Overcast. 5. Cloudy. 6. Rainy till afternoon, then fine. 7. Light rain after noon. 8. Overcast. 9. Fine intervals forenoon; rain after $8\frac{1}{2}^h$ p.m. 10. Rainy till 2^h p.m. 11. Rain after $9\frac{1}{2}^h$ p.m. 12. Fine. 13. Overcast; squally. 14. Overcast; squally. 15. Cloudy; rainy evening. 16. Very fine after 11^h a.m. 17. Fine. 18. Rain $7\frac{1}{2}^h$–11^h a.m., then fine. 19. Overcast. 20. Overcast. 21. Fine to cloudy. 22. Fine till evening, then slight rain. 23. Fine to overcast; rain 4^h–7^h p.m. 24. Overcast till evening; rain $0\frac{1}{2}^h$–$2\frac{1}{2}^h$ p.m., with hail at 2^h p.m. 25. Cloudy; rain $10\frac{1}{2}^h$ a.m.–$6\frac{1}{2}^h$ p.m. 26. Overcast till evening; rain 7^h–9^h a.m., then showers. 27. Rain after 2^h p.m. 28. Overcast; rain at times after $0\frac{1}{2}^h$ p.m. 29. Fine intervals; rain early. 30. Fine generally. 31. Generally overcast.

Indications of Schönbein's Ozonometer, observed at Noon and 8h *p.m. of each day, during the Year* 1912.

Day.	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
	0h	8h	0h	8h	0h	8h	0h	8h	0h	8h	0h	8h	0h	8h	0h	8h	0h	8h	0h	8h	0h	8h	0h	8h
1	0	0	0	0	3	6	6	1	4	4	3	2	5	4	1	0	2	2	0	0	0	0	0	0
2	0	0	0	1	6	6	4	0	0	2	2	4	0	0	0	0	0	0	1	0	0	0	2	0
3	0	0	0	0	7	3	4	2	2	0	0	3	1	1	0	0	0	0	0	0	0	0	0	0
4	5	0	7	5	0	4	3	3	4	5	5	2	4	2	0	3	4	4	0	0	0	0	0	0
5	7	5	4	3	10	0	5	4	0	0	4	1	5	4	0	1	5	5	0	0	0	0	0	0
6	0	1	0	0	7	0	3	2	1	0	1	0	4	3	0	0	5	3	0	0	0	0	0	0
7	4	0	0	0	6	0	3	0	1	0	3	0	4	5	0	1	4	1	0	1	0	0	0	0
8	0	0	0	0	0	0	5	3	1	0	3	0	3	3	0	1	6	3	0	0	0	0	0	0
9	0	0	0	0	1	0	0	4	1	0	4	1	0	0	0	0	2	0	0	0	0	0	0	2
10	0	0	0	0	0	0	3	0	4	2	4	5	0	2	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	5	0	2	0	2	3	0	0	3	0	0	0	0	0	0	0	1	3
12	0	0	3	0	0	0	3	1	0	3	6	3	2	0	0	3	1	0	0	0	0	0	2	0
13	0	0	0	0	0	0	5	2	6	2	3	3	0	0	0	0	0	0	0	0	0	0	3	3
14	0	0	0	0	0	0	0	0	4	2	5	0	5	2	0	0	0	0	0	0	0	0	8	5
15	0	0	0	0	4	4	1	0	2	3	5	4	4	2	0	0	0	0	0	0	0	0	4	0
16	0	0	0	0	1	0	6	3	6	5	4	3	4	2	0	0	0	0	0	0	0	0	4	0
17	0	0	0	0	0	0	5	3	4	3	3	4	4	2	0	2	0	0	0	0	0	0	1	0
18	0	0	0	0	1	3	1	1	3	3	0	1	5	3	3	2	0	0	0	0	0	0	3	0
19	0	0	0	0	3	0	3	0	2	1	0	3	1	0	0	0	0	0	0	0	0	0	2	3
20	0	1	3	0	3	0	2	1	3	4	5	4	3	4	0	0	0	0	0	0	0	0	4	0
21	0	0	0	0	5	0	3	0	1	2	2	1	0	3	0	0	0	0	0	0	0	0	1	0
22	0	0	0	0	5	5	3	2	4	2	4	2	3	0	2	0	0	0	0	0	0	0	0	0
23	0	0	4	0	0	0	5	3	1	2	5	3	3	2	0	0	2	0	0	0	0	0	1	0
24	3	0	0	0	3	0	4	3	4	0	5	0	0	0	0	0	0	0	0	0	3	0	0	3
25	0	0	0	0	1	0	5	3	2	3	0	2	0	1	2	0	0	0	0	0	5	0	0	2
26	1	0	0	0	5	0	4	1	1	3	3	2	1	0	0	0	0	0	0	0	5	5	6	7
27	1	0	6	0	5	5	5	3	0	1	0	0	0	0	0	0	0	3	2	1	2	0	0	0
28	0	0	4	0	4	5	6	3	4	5	0	2	4	3	1	1	2	3	0	0	0	0	6	0
29	0	0	4	1	5	3	3	1	0	2	0	4	6	0	5	0	0	3	0	0	0	0	4	1
30	0	0	...	...	5	0	3	0	4	4	2	3	0	1	4	3	0	0	0	0	0	0	1	0
31	0	0	...	...	4	0	...	...	4	2	...	...	0	0	4	0	...	...	0	0	...	...	5	1
Means	0·7	0·2	1·2	0·3	3·0	1·4	3·6	1·6	2·4	2·1	2·8	2·2	2·3	1·6	0·8	0·5	1·1	0·9	0·1	0·1	0·5	0·2	1·9	1·0

SUMMARY OF THE WEATHER AND REMARKABLE PHENOMENA
1912.

JANUARY.

Temperature.

	°
Highest, air, on the 4th at 8h 15m p.m.	50·1
Lowest, air, on the 29th at 7h 40m a.m.	20·9
Highest, sun, on the 5th	89·1
Lowest, grass, on the 30th	13·0

*Rain on the 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, and 25th.

Snow on the 17th, 18th, 23rd, 24th, 30th, and 31st.

Hail on the 5th, 8th, 9th, 17th, 24th, and 31st.

Sleet on the 8th and 24th.

Fog on the 10th, 12th, 20th, 21st, 22nd, 30th, and 31st.

Solar halo on the 2nd, 12th, 15th, and 20th.

Parhelia on the 12th.

Lunar halo on the 3rd and 31st.

Lunar corona on the 5th, 28th, and 31st.

Zodiacal light on the 9th.

Lightning on the 4th, 5h 25m and 5h 40m p.m.

Thunder on the 9th, 4h 4m p.m.

FEBRUARY.

Temperature.

	°
Highest, air, on the 28th at 3h 25m p.m.	57·6
Lowest, air, on the 3rd at 6h 10m a.m.	18·3
Highest, sun, on the 25th	106·0
Lowest, grass, on the 5th	11·9

Rain on the 6th, 7th, 8th, 9th, 11th, 12th, 13th, 15th, 16th, 19th, 20th, 21st, 22nd, 23rd, 24th, 26th, and 29th.

Snow on the 1st, 2nd, 3rd, 4th, and 5th.

Hail on the 2nd.

Fog on the 16th.

Solar halo on the 7th, 18th, 23rd, 24th, 27th, 28th, and 29th.

Parhelia on the 7th, 10th, 18th, 24th, 27th, and 28th.

Lunar halo on the 25th, 26th, 27th, and 28th.

Lunar corona on the 26th, 27th, and 28th.

Zodiacal light on the 8th.

MARCH.

Temperature.

	°
Highest, air, on the 25th at 3h 20m p.m.	60·7
Lowest, air, on the 16th at 4h 15m a.m.	33·9
Highest, sun, on the 30th	120·6
Lowest, grass, on the 16th	27·9

Rain on the 1st, 2nd, 3rd, 4th, 5th, 7th, 8th, 9th, 10th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 28th, 30th, and 31st.

Hail on the 4th, 7th, 19th, 20th, 21st, and 22nd.

Fog on the 11th and 12th.

Gale on the 4th, night–5th.

Solar halo on the 2nd, 5th, 6th, 7th, 10th, 12th, 15th, 17th, 18th, 19th, 20th, 28th, and 31st.

Parhelia on the 3rd, 6th, and 20th.

Sun pillar on the 7th.

Lunar halo on the 2nd, 26th, 27th, 28th, 29th, 30th, and 31st.

Lunar corona on the 1st, 26th, 27th, 28th, 29th, 30th, and 31st.

Paraselenæ on the 28th.

Zodiacal light on the 7th, 8th, and 15th (very bright).

Thunderstorm on the 4th, 3½h–3¾h p.m., and 21st, 11½h a.m. (slight).

Thunder on the 21st, 10½h a.m.

APRIL.

Temperature.

	°
Highest, air, on the 20th at 2h 25m p.m. and 21st at 3h 30m p.m.	67·8
Lowest, air, on the 12th at 5h 35m a.m.	29·4
Highest, sun, on the 20th	131·3
Lowest, grass, on the 12th	16·1

Rain on the 9th and 10th.

Hail on the 1st.

Gale on the 5th and 8th.

Solar halo on the 4th, 5th, 7th, 12th, and 17th.

Sun pillar on the 3rd.

Lunar halo on the 3rd and 4th.

Zodiacal light on the 3rd, 6th (bright), 8th, 15th, and 16th.

* Amounts of Rainfall under 0in·005 are not included in this summary.

MAY.

Temperature.

Highest, air, on the 11th at $0^h\ 35^m$ p.m. 75°·9
Lowest, air, on the 1st at $4^h\ 5^m$ a.m. and $4^h\ 25^m$ a.m. 37°·0
Highest, sun, on the 11th ... ... 133°·2
Lowest, grass, on the 1st ... ... 24°·7

Rain on the 3rd, 4th, 5th, 6th, 7th, 12th, 15th, 16th, 21st, 22nd, 23rd, and 31st.
Hail on the 16th and 31st.

Solar halo on the 8th, 9th, 10th, 11th, 14th, 17th, 19th, 20th, 21st, 27th, and 28th.
Parhelion on the 21st.
Lunar halo on the 2nd and 19th.
Lunar corona on the 2nd.
Vertical lunar bar on 2nd.
Lightning and thunder on the 31st, $2\frac{1}{4}^h$ p.m.
Lightning on the 29th, after $10\frac{1}{4}^h$ p.m.
Thunder on the 12th, $3\frac{3}{4}^h$ p.m. (distant); 16th, $3\frac{1}{2}^h$ p.m.; 29th, $4^h\ 25^m$ p.m. (distant), and 31st, afternoon (distant).

JUNE.

Temperature.

Highest, air, on the 22nd at $5^h\ 50^m$ p.m. 77°·6
Lowest, air, on the 3rd at $4^h\ 20^m$ a.m. 42°·8
Highest, sun, on the 22nd ... ... 138°·4
Lowest, grass, on the 3rd ... ... 35°·3

Rain on the 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 12th, 13th, 15th, 16th, 17th, 19th, 25th, 28th, 29th, and 30th.

Hail on the 16th.
Solar halo on the 3rd, 4th, 9th, 12th, 15th, 17th, 18th, 19th, 20th, and 21st.
Parhelion on the 3rd.
Thunderstorm on the 19th, 10^h a.m. (slight).
Lightning on the 16th, $11\frac{3}{4}^h$ a.m., and 22nd, after $10\frac{1}{4}^h$ p.m.
Thunder on the 16th, 11^h a.m.–noon.

JULY.

Temperature.

Highest, air, on the 15th at $4^h\ 50^m$ p.m. 84°·4
Lowest, air, on the 9th at $4^h\ 5^m$ a.m. 46°·4
Highest, sun, on the 12th ... ... 139°·0
Lowest, grass, on the 9th ... ... 38°·4

Rain on the 1st, 2nd, 3rd, 6th, 7th, 12th, 13th, 19th, 20th, 21st, 22nd, 23rd, 24th, 27th, 28th, 29th, and 31st.

Solar halo on the 9th and 10th.
Thunderstorm on the 6th, $2\frac{1}{2}^h$ p.m.–4^h p.m.; 12th, 3^h p.m.–4^h p.m.; 23rd, 2^h p.m.; and 27th, $0\frac{1}{2}^h$ a.m.–$1\frac{3}{4}^h$ a.m. and $11\frac{1}{4}^h$ p.m.
Lightning on the 14th, 11^h p.m.
Thunder on the 30th, $0\frac{3}{4}^h$ p.m. (distant).

AUGUST.

Temperature.

Highest, air, on the 4th at $1^h\ 10^m$ p.m. 69°·4
Lowest, air, on the 28th at $5^h\ 45^m$ a.m. 42°·2
Highest, sun, on the 4th ... ... 127°·9
Lowest, grass, on the 28th ... ... 35°·5

Rain on the 1st, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 14th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 26th, 28th, and 29th.
Hail on the 10th and 19th.
Solar halo on the 3rd, 12th, 22nd, and 27th.

Parhelion on the 22nd.
Sun pillar on the 18th.
Thunderstorm on the 10th, 5^h p.m.–6^h p.m.; and 19th, noon.
Lightning and thunder (distant) on the 19th, $7\frac{1}{2}^h$ p.m.
Lightning on the 8th, $3\frac{1}{2}^h$ p.m.; 10th, $11\frac{1}{4}^h$ a.m., and 19th, 8^h p.m.–9^h p.m.
Thunder on the 7th, $11\frac{1}{2}^h$ a.m. and $0\frac{1}{2}^h$ p.m.–1^h p.m.; 8th, 2^h p.m.–6^h p.m.; 9th, 1^h p.m., and 10th, 11^h a.m. (with shower)–noon.

SEPTEMBER.

Temperature.

	°
Highest, air, on the 8th at 1h 5m p.m.	65·2
Lowest, air, on the 22nd at 6h 15m a.m.	38·7
Highest, sun, on the 8th	129·0
Lowest, grass, on the 26th	29·5

Rain on the 1st, 2nd, 4th, 5th, 8th, 9th, 28th, 29th, and 30th.
Fog on the 13th and 18th.
Solar halo on the 28th and 30th.
Lunar halo on the 27th.
Lunar corona on the 27th.

OCTOBER.

Temperature.

	°
Highest, air, on the 14th at 0h 15m p.m.	63·2
Lowest, air, on the 5th at 6h 15m a.m.	29·0
Highest, sun, on the 14th	112·9
Lowest, grass, on the 5th	22·2

Rain on the 1st, 2nd, 9th, 10th, 16th, 19th, 20th, 21st, 22nd, 23rd, 25th, 26th, 27th, 28th, 29th, 30th, and 31st.

Fog on the 5th, 7th, 9th, 10th, 11th, 12th, 18th, 22nd, 23rd, 24th, 25th, and 26th.
Solar halo on the 13th and 15th.
Parhelion on the 13th.
Thunderstorm on the 30th, 5½h p.m.

NOVEMBER.

Temperature.

	°
Highest, air, on the 9th at 1h 35m p.m.	55·4
Lowest, air, on the 30th at 11h 50m p.m.	26·6
Highest, sun, on the 9th	98·3
Lowest, grass, on the 3rd	21·9

Rain on the 4th, 5th, 10th, 11th, 12th, 13th, 16th, 17th, 18th, 20th, 24th, 25th, 26th, 27th, 28th, and 29th.

Hail on the 11th and 25th.
Fog on the 3rd, 4th, 6th, and 18th.
Gale on the 26th.
Solar halo on the 2nd, 9th, 10th, 28th (with contact arch), and 30th.
Parhelion on the 28th and 30th.
Lunar halo on the 25th.
Lunar corona on the 25th.

DECEMBER.

Temperature.

	°
Highest, air, on the 27th at 11h 45m p.m.	55·4
Lowest, air, on the 1st at 5h a.m. ...	25·9
Highest, sun, on the 22nd	87·0
Lowest, grass, on the 1st	21·0

Rain on the 1st, 3rd, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 14th, 15th, 16th, 17th, 18th, 19th, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, and 29th.

Snow on the 1st.
Hail on the 24th.
Fog on the 10th.
Gale on the 13th, 14th, and 24th.
Solar halo on the 5th and 28th.
Lunar halo on the 17th, 23rd, 24th, and 26th.
Lunar corona on the 17th, 24th, 26th, and 30th.

Recorded at the Radcliffe Observatory by the Anemograph, at an elevation of 114 feet above the Ground.

Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.
Jan. 1	WSW	226	Feb. 1	WNW	174	Mar. 1	S	616	Apr. 1	NNW	527
2	WSW	260	2	N	362	2	SSW	676	2	W	285
3	WSW	348	3	WNW	224	3	SW	466	3	W	144
4	WSW	528	4	NE	378	4	SSW	591	4	SW	523
5	WSW	518	5	ENE	301	5	SW	591	5	WSW	753
6	SSW	489	6	ESE	192	6	W	303	6	WSW	493
7	NNW	346	7	SSE	362	7	WSW	279	7	WSW	296
8	Var.†	267	8	SE	359	8	S	385	8	WSW	701
9	SSW	368	9	SSE	342	9	SSE	344	9	WNW	515
10	S	211	10	SSE	326	10	SE	114	10	WNW	381
11	SSE	250	11	ESE	316	11	NE	114	11	NW	309
12	SSW	157	12	E	293	12	Var.†	162	12	Var.†	104
13	SSE	230	13	Var.†	211	13	SW	392	13	W	106
14	SSE	275	14	NNE	184	14	SSW	320	14	NNW	228
15	SE	326	15	SSE	276	15	SW	395	15	NNE	169
16	ESE	329	16	S	263	16	SW	317	16	E	190
17	E	385	17	SSE	209	17	S	407	17	ENE	193
18	Var.†	210	18	SE	214	18	Var.†	298	18	Var.†	93
19	Var.†	153	19	SSE	308	19	SW	362	19	SSW	145
20	E	173	20	WSW	446	20	SW	360	20	S	146
21	SW	83	21	S	198	21	S	476	21	E	109
22	Var.†	142	22	S	424	22	WSW	392	22	ENE	226
23	NE	333	23	SW	449	23	Var.†	197	23	NNE	375
24	NE	239	24	Var.†	134	24	WSW	473	24	NNE	436
25	NNW	91	25	SW	185	25	SSW	466	25	NNE	277
26	NNE	297	26	SSW	406	26	SSW	402	26	NNE	346
27	NE	249	27	SW	634	27	WSW	479	27	NE	356
28	NE	117	28	S	502	28	WSW	537	28	NNE	318
29	N	113	29	SSW	534	29	WSW	503	29	N	294
30	WNW	187				30	WSW	536	30	NNE	132
31	W	228				31	SSW	275			
Sum ...		8128	Sum ...		9206	Sum ...		12228	Sum ...		9170

† Jan. 8. WNW till 9h a.m.; then suddenly backing to SE; SE after. Jan. 18. NE till 6h p.m.; then backing to SW by 8½h p.m.; SW after. Jan. 19. Backing from SW at midnight to ENE by 11h a.m.; ENE after. Jan. 22. Nearly calm till 0½h p.m.; NE after. Feb. 13. SSE till 4h a.m.; veering to N by 9h a.m.; N after. Feb. 24. NNE till 4h a.m.; nearly calm till 11h a.m.; SSE after. Mar. 12. Nearly calm till 10h a.m.; S after. Mar. 18. Gradually backing from S to W. Mar. 23. Light airs till 7½h a.m.; SSE after. Apr. 12. Light airs. Apr. 18. Nearly calm till noon; WSW after.

Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.
May 1	WSW	213	June 1	NE	112	July 1	WNW	253	Aug. 1	WSW	431
2	WSW	289	2	Var.†	191	2	NW	251	2	W	166
3	W	145	3	SW	249	3	NNE	258	3	ENE	154
4	ENE	181	4	Var.†	235	4	NNE	258	4	SSE	464
5	ESE	180	5	SW	285	5	NE	277	5	SSW	508
6	SSW	293	6	SW	220	6	NNE	249	6	SSE	453
7	SW	351	7	Nearly Calm	77	7	WNW	244	7	WSW	352
8	WSW	332	8	W	117	8	SW	326	8	WSW	271
9	WSW	222	9	S	183	9	SSW	167	9	WSW	230
10	ENE	199	10	S	214	10	S	313	10	SW	213
11	SSW	321	11	NE	219	11	S	304	11	W	197
12	Var.†	248	12	N	234	12	S	258	12	NE	220
13	Var.†	147	13	WSW	313	13	Var.†	151	13	NW	296
14	ESE	137	14	WSW	333	14	NNE	216	14	WSW	312
15	Var.†	222	15	WSW	491	15	NE	215	15	WSW	371
16	WNW	391	16	W	338	16	NE	262	16	SW	374
17	W	333	17	SW	296	17	NNE	391	17	S	394
18	WSW	256	18	WSW	419	18	NNW	236	18	SSW	303
19	SW	125	19	SSW	324	19	NW	353	19	S	330
20	Var.†	281	20	WSW	436	20	Var.†	110	20	SW	456
21	S	128	21	SSW	304	21	Var.†	90	21	SW	346
22	S	263	22	SSE	308	22	Var.†	93	22	W	339
23	NW	255	23	SW	400	23	ENE	151	23	SW	506
24	N	276	24	SW	404	24	SSE	141	24	SW	259
25	NE	103	25	S	491	25	S	195	25	SW	150
26	Var.†	86	26	WSW	389	26	SSE	204	26	W	173
27	Var.†	149	27	SSW	316	27	SE	208	27	NW	249
28	NW	162	28	S	392	28	SSW	512	28	Var.†	207
29	W	115	29	S	246	29	SSW	516	29	SSW	396
30	SSW	165	30	WSW	184	30	SW	421	30	WSW	285
31	Var.†	97				31	S	326	31	W	203
Sum ...		6665	Sum ...		8720	Sum ...		7949	Sum ...		9608

† **May 12.** Light airs till $7\frac{1}{2}^h$ a.m.; N after. **May 13.** NE till $9\frac{1}{2}^h$ a.m.; then veering to SSE; SSE after. **May 15.** NNE till 1^h p.m.; then suddenly veering to S; S till $4\frac{1}{2}^h$ p.m.; again veering to W by $6\frac{1}{2}^h$ p.m.; W after. **May 20.** Backing from S to ENE by $5\frac{1}{2}^h$ a.m.; ENE till 7^h a.m.; then veering to SW by noon; WSW after. **May 26.** Light airs. **May 27.** Light airs till $8\frac{1}{2}^h$ a.m.; NW after. **May 31.** SE till $2\frac{1}{2}^h$ p.m.; veering to NE by 7^h p.m.; nearly calm after. **June 2.** NE till 10^h a.m.; veering to SSW by noon; SSW after. **June 4.** SSE till 6^h p.m.; veering to NW by $6\frac{1}{2}^h$ p.m.; NW after. **July 13.** Light airs till $8\frac{1}{2}^h$ a.m.; NNW after. **July 20.** Nearly calm till 5^h a.m.; NNE till 5^h p.m.; backing to SSE by $6\frac{1}{2}^h$ p.m.; SSE after. **July 21.** Nearly calm till 7^h a.m.; SSW after. **July 22.** Light airs. **Aug. 28.** WNW till 9^h a.m.; then backing to SSE; SSE after.

Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.
Sept. 1	W	176	Oct. 1	Var.†	293	Nov. 1	NW	164	Dec. 1	SW	348
2	WNW	276	2	NNE	252	2	W	180	2	W	423
3	SW	259	3	N	270	3	Nearly Calm	65	3	SSW	232
4	WSW	481	4	Nearly Calm	70	4	SSW	255	4	SSW	308
5	WSW	427	5	S	127	5	Var.†	249	5	SSE	243
6	WNW	431	6	SSW	109	6	Var.†	90	6	SSW	342
7	W	325	7	SW	85	7	SW	263	7	S	335
8	W	426	8	ESE	116	8	SW	285	8	S	245
9	N	262	9	NE	144	9	SW	270	9	SSW	372
10	NNW	259	10	E	103	10	WSW	475	10	Var.†	144
11	NW	373	11	Calm	30	11	WNW	601	11	SSW	551
12	N	292	12	SSE	64	12	NNW	556	12	WSW	391
13	Var.†	88	13	S	202	13	NNW	492	13	SW	719
14	NW	198	14	Var.†	354	14	NNW	392	14	WSW	863
15	NW	184	15	SW	93	15	NW	107	15	WSW	544
16	Nearly Calm	64	16	SSW	287	16	Nearly Calm	53	16	WSW	345
17	NNW	105	17	W	237	17	W	152	17	SW	452
18	NNE	165	18	SW	296	18	WNW	140	18	WSW	421
19	NE	198	19	W	269	19	W	273	19	SSW	570
20	ENE	210	20	SW	471	20	WSW	386	20	S	445
21	ENE	260	21	SSW	263	21	WNW	196	21	S	255
22	ENE	283	22	N	241	22	WSW	197	22	SSW	298
23	ENE	228	23	Nearly Calm	60	23	SW	335	23	SSW	327
24	NE	211	24	SW	90	24	WSW	414	24	SSW	516
25	ENE	184	25	Nearly Calm	66	25	SW	562	25	SW	377
26	ESE	261	26	SSE	264	26	SSW	641	26	SSW	525
27	E	326	27	SSW	591	27	WSW	287	27	SSW	375
28	ENE	332	28	SSW	535	28	Var.†	204	28	SW	421
29	SE	342	29	SSW	565	29	Var.†	340	29	WSW	457
30	Var.†	274	30	S	458	30	NNW	319	30	SW	430
			31	WNW	378				31	SSW	508
Sum ...		7900	Sum ...		7383	Sum ...		8943	Sum ...		12782

† Sept. 13. Nearly calm till noon; WNW after. Sept. 30. SE till 11^h a.m.; then veering to SW; SW till 6^h p.m.; backing to NNE by 9^h p.m.; NNE after. Oct. 1. Backing from N to WSW by 4$\frac{1}{2}^h$ a.m.; WSW till 4$\frac{1}{2}^h$ p.m.; light airs till 7$\frac{1}{2}^h$ p.m.; NE after. Oct. 14. SSW till 3$\frac{1}{2}^h$ p.m.; veering to NNW by 5^h p.m.; NNW after. Nov. 5. SSW till 9$\frac{1}{2}^h$ a.m.; veering to N by 2^h p.m.; N after. Nov. 6. Light airs. Nov. 28. W till 8$\frac{1}{2}^h$ a.m.; veering to SSE by 10^h a.m.; SSE after. Nov. 29. SSE till 7$\frac{1}{2}^h$ a.m.; backing to NNW by 9^h a.m.; NNW after. Dec. 10. SSW till 4$\frac{1}{2}^h$ a.m.; veering to N by 5$\frac{1}{2}^h$ a.m.; N till noon; then veering through 495° to SE by 4$\frac{1}{2}^h$ p.m.; SE after.

METEOROLOGICAL OBSERVATIONS

MADE AT THE

RADCLIFFE OBSERVATORY, OXFORD,

1913.

JANUARY, 1913.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				inches.	
1	29·667	44·2	43·3	47·4	41·8	58·0	36·3	S W	193	1·7	6·7	0·00	0·076	1
2	29·691	39·3	38·5	45·5	36·0	75·2	28·7	S S E	197	1·0	4·7	4·90	0·004	2
3	29·605	45·8	44·5	48·3	39·9	67·3	32·0	S S E	404	1·7	10·0	0·30	...	3
4	29·599	47·2	46·2	48·8	45·3	50·2	43·3	S	356	3·0	10·0	0·00	0·339	4
5	29·617	46·4	44·7	51·5	39·0	55·2	33·9	S S W	209	3·0	6·7	0·00	0·029	5
6	29·812	42·9	41·7	46·7	37·6	78·0	29·0	S	316	1·3	3·7	3·50	0·004	6
7	29·820	47·8	46·1	49·5	45·2	54·7	43·3	S	281	2·3	10·0	0·00	...	7
8	29·715	45·0	43·3	47·3	43·0	81·9	38·3	S E	269	2·7	7·3	3·30	...	8
9	29·680	47·4	45·4	51·3	44·3	79·3	42·0	S E	237	2·3	6·7	4·75	...	9
10	29·699	38·7	38·0	46·5	36·3	46·0	33·9	E S E	266	2·7	10·0	0·00	...	10
11	29·347	37·4	36·9	40·7	35·0	39·5	34·0	S E	337	3·3	10·0	0·00	0·494	11
12	29·487	37·1	35·7	43·4	34·8	77·1	29·1	W S W	98	2·0	0·3	5·85	...	12
13	29·555	30·6	30·6	34·9	28·9	40·0	23·8	Calm	86	0·3	5·0	0·00	0·007	13
14	29·447	35·9	34·8	39·6	30·6	69·8	24·8	S S E	236	1·3	6·7	3·40	0·031	14
15	29·101	42·8	40·6	47·2	37·0	82·7	31·9	S	210	2·7	6·7	4·00	0·259	15
16	29·181	39·8	38·5	44·1	34·4	74·2	25·7	S E	204	2·3	3·7	3·05	0·029	16
17	29·245	40·0	38·9	45·5	38·1	82·4	34·6	S W	77	1·0	7·0	2·40	0·054	17
18	29·457	36·8	36·0	43·5	31·8	88·9	24·6	S W	207	1·3	5·7	1·70	0·018	18
19	29·384	38·7	37·9	44·6	33·9	47·0	25·6	S S E	351	2·3	9·3	0·00	0·577	19
20	28·889	42·8	41·4	47·4	37·8	71·7	33·0	S	259	3·0	6·7	0·20	0·157	20
21	29·264	40·7	39·1	42·2	39·4	49·6	34·3	N W	192	3·7	8·3	0·00	0·040	21
22	29·812	32·8	32·0	40·2	29·7	50·0	23·0	S S E	351	1·0	5·7	0·00	0·317	22
23	29·605	48·9	46·9	51·2	33·9	76·2	32·2	W S W	450	6·0	9·3	0·40	0·056	23
24	29·499	48·5	45·6	50·5	45·0	58·8	42·8	S S W	359	3·7	9·0	0·00	0·046	24
25	29·657	42·3	40·2	49·5	39·4	75·1	37·0	N W	121	1·3	7·7	0·95	...	25
26	30·091	35·8	33·7	42·5	30·9	82·4	24·6	E	140	1·0	1·3	5·15	0·001	26
27	29·818	38·6	36·6	42·3	35·0	73·3	27·9	S E	142	1·0	8·7	1·50	...	27
28	29·634	41·2	40·6	43·8	34·6	47·9	27·7	S E	92	1·3	10·0	0·00	0·325	28
29	29·612	42·7	42·5	43·9	42·1	46·2	40·9	E N E	49	0·7	10·0	0·00	0·019	29
30	29·372	43·4	42·5	47·1	40·8	48·6	40·5	S	464	3·0	10·0	0·00	0·121	30
31	29·280	37·9	35·0	51·5	35·8	84·2	30·8	W S W	358	4·7	0·0	5·90	0·025	31
Mean or Sum.	29·537	41·27	39·93	45·75	37·33	64·88	32·56	...	7511	2·21	7·00	51·25	3·028	Mean or Sum.

Weather.

1. Overcast till evening; rain $7\frac{1}{4}^h$–11^h a.m. 2. Fine till evening. 3. Overcast. 4. Frequent rain or drizzle. 5. Overcast till $4\frac{1}{2}^h$ p.m. 6. Very fine till afternoon. 7. Overcast. 8. Cloudy to fine. 9. Fine 10^h a.m.–4^h p.m. 10. Dull. 11. Frequent rain. 12. Very fine. 13. Fog till afternoon, then fair. 14. Snow, sleet and rain early, then fine. 15. Fine 10^h a.m.–3^h p.m.; rain early and in evening. 16. Very fine till afternoon. 17. Fine intervals; showery afternoon. 18. Fair. 19. Frequent rain after 2^h p.m. with hail $7\frac{1}{4}^h$ p.m. and $9\frac{1}{4}^h$ p.m. 20. Variable; showery. 21. Generally overcast. 22. Fine to cloudy; snow after 3^h p.m.; rain after $7\frac{1}{2}^h$ p.m. 23. Overcast till afternoon. 24. Overcast. 25. Cloudy. 26. Fine. 27. Fine midday. 28. Overcast; rain after $11\frac{1}{2}^h$ a.m. 29. Gloomy. 30. Slight rain after 4^h p.m.; squally night. 31. Fine.

FEBRUARY, 1913.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·392	37·1	36·1	40·7	34·4	47·0	28·6	SW	249	1·7	10·0	0·00	0·220	1
2	29·510	40·8	38·6	45·5	33·6	70·3	28·6	SW	483	3·7	6·7	0·35	0·110	2
3	29·807	49·7	46·6	51·5	44·0	61·3	38·9	WSW	540	6·0	9·0	0·00	...	3
4	29·996	49·8	46·3	53·5	46·9	95·0	42·3	SSW	274	4·0	6·0	1·20	...	4
5	29·757	46·9	43·9	49·5	43·1	87·0	34·2	SSW	268	3·3	10·0	1·30	0·011	5
6	29·677	46·3	44·8	51·5	36·1	73·8	32·3	S	408	3·3	7·0	0·05	0·072	6
7	29·646	48·6	46·4	52·5	42·0	53·8	36·9	SSW	624	5·3	8·0	0·00	0·217	7
8	30·131	43·2	39·5	51·6	39·6	96·0	34·3	WSW	406	3·0	0·3	6·50	...	8
9	30·135	50·6	49·4	54·6	41·0	77·1	34·0	SW	171	2·7	10·0	0·20	0·241	9
10	30·194	46·2	43·9	53·1	43·9	84·5	34·1	S	53	1·0	7·0	2·90	0·024	10
11	30·356	36·9	36·0	53·5	29·1	93·0	24·1	Var.	6	0·7	3·3	6·95	...	11
12	30·432	34·4	34·4	43·5	29·8	64·6	26·0	Calm	53	0·3	6·7	2·90	0·007	12
13	30·323	31·8	31·7	37·6	28·8	50·9	29·1	SW	69	0·7	10·0	0·00	0·007	13
14	30·216	36·1	35·9	39·5	28·1	46·5	25·7	NNW	37	1·0	10·0	0·00	0·006	14
15	30·007	37·1	36·8	38·5	35·3	41·7	34·8	Var.	123	1·0	10·0	0·00	0·010	15
16	30·023	37·6	35·3	46·5	32·6	91·6	29·6	NE	212	1·3	1·7	7·40	...	16
17	29·995	37·6	35·9	41·2	32·1	59·0	27·8	NE	391	2·7	10·0	0·00	0·004	17
18	29·964	32·7	29·8	39·5	30·5	89·2	26·4	NE	383	5·0	1·7	8·45	...	18
19	29·928	31·5	29·0	39·6	27·8	86·3	23·8	NE	369	3·7	5·7	4·85	...	19
20	29·913	32·4	29·3	35·8	31·9	78·9	27·0	NE	274	3·3	9·7	1·40	...	20
21	30·116	38·0	34·8	43·2	32·0	87·0	27·0	NE	114	2·0	7·7	1·65	...	21
22	30·235	36·2	34·8	40·3	30·1	61·4	22·0	ESE	162	1·0	6·7	0·00	0·008	22
23	30·032	37·9	33·9	47·7	29·0	89·7	19·8	SE	199	2·3	1·3	4·80	...	23
24	29·651	40·4	36·9	49·0	33·0	81·2	22·7	SSE	258	2·3	6·0	1·00	...	24
25	29·557	44·2	41·0	47·2	41·7	82·6	34·4	S	163	2·0	8·0	0·25	...	25
26	29·510	44·6	43·2	47·5	41·6	61·7	33·6	SSE	70	1·0	10·0	0·00	0·026	26
27	29·615	45·4	42·5	50·0	39·6	100·0	30·5	NW	244	2·3	10·0	2·50	0·010	27
28	30·041	39·2	36·5	44·7	34·0	92·7	28·2	NE	86	1·3	6·3	2·95	...	28
Mean or Sum.	29·934	40·47	38·33	46·03	35·41	75·14	29·88	...	6689	2·42	7·10	57·60	0·973	Mean or Sum.

Weather.

1. Light rain after noon. 2. Fine early and after 2½h p.m.; rain midday. 3. Overcast; squally. 4. Cloudy. 5. Fine intervals. 6. Overcast generally; rain after 7½h p.m. 7. Rain after noon; squally. 8. Fine. 9. Overcast to fair; rain after 8½h p.m. 10. Cloudy to fine. 11. Fog early, then very fine. 12. Foggy; fine afternoon. 13. Overcast; fog. 14. Overcast; fog. 15. Gloomy. 16. Very fine. 17. Overcast. 18. Very fine. 19. Very fine at times. 20. Cloudy. 21. Fine intervals. 22. Overcast, fine night; sleet 8¼h a.m. 23. Fine. 24. Cloudy. 25. Overcast generally. 26. Overcast. 27. Fine to overcast. 28. Very fine early, then overcast.

MARCH, 1913.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·990	39·4	36·1	42·9	37·3	65·5	35·1	SSE	373	2·3	10·0	0·00	...	1
2	29·817	44·7	41·5	51·5	37·8	102·1	36·0	SW	489	3·0	8·3	5·85	0·158	2
3	29·717	49·6	47·3	52·5	42·2	58·1	37·8	WSW	393	5·7	9·7	0·00	0·104	3
4	29·691	50·2	47·9	54·3	38·0	84·4	30·3	SW	588	5·7	9·7	0·05	...	4
5	29·864	48·8	44·9	55·1	46·8	106·8	41·2	WSW	455	3·3	2·7	7·00	0·006	5
6	29·736	48·9	45·9	54·4	46·3	92·6	42·0	WSW	477	5·0	9·0	1·80	0·135	6
7	29·746	43·0	39·3	50·5	39·6	91·6	34·4	WSW	241	3·0	4·0	3·80	...	7
8	30·088	39·4	35·7	47·6	31·8	102·2	25·5	WNW	248	2·7	5·3	6·65	0·004	8
9	30·221	44·5	42·0	47·0	35·0	63·3	27·0	SW	525	4·0	10·0	0·00	0·008	9
10	30·117	48·7	47·1	50·3	46·0	59·3	44·5	WSW	326	2·0	10·0	0·00	0·003	10
11	30·049	45·8	42·8	55·6	43·7	106·0	31·6	WSW	137	3·0	6·7	3·40	...	11
12	29·972	41·9	39·6	50·4	28·9	94·4	22·9	S	88	1·3	6·3	5·55	...	12
13	29·782	43·9	41·4	53·7	33·8	95·1	27·6	WSW	466	1·7	9·3	1·20	...	13
14	29·542	49·0	47·2	52·1	45·3	62·6	42·9	SSW	521	5·0	9·7	0·00	0·136	14
15	29·781	42·4	38·2	47·4	36·2	104·9	31·6	WSW	627	6·3	4·3	9·05	0·023	15
16	29·488	40·3	38·4	46·7	37·6	98·0	36·6	WSW	387	3·3	9·7	3·35	0·393	16
17	29·156	34·6	33·8	46·7	33·7	93·6	29·7	WNW	189	2·7	9·0	1·90	0·416	17
18	29·451	36·9	33·4	43·9	28·1	96·1	21·9	SW	505	1·3	3·7	6·80	...	18
19	28·774	47·0	42·3	51·2	37·0	107·2	34·2	WSW	578	7·3	6·3	5·20	0·097	19
20	29·166	45·6	41·6	52·5	39·4	109·1	34·4	SSW	472	5·7	6·7	5·95	0·244	20
21	29·242	44·4	40·8	51·1	38·0	110·1	33·7	SSW	373	4·0	5·7	1·80	0·186	21
22	29·147	46·6	44·1	53·7	40·4	101·9	36·3	SSE	485	3·3	8·7	0·95	0·213	22
23	29·261	45·9	42·5	53·0	38·1	108·2	35·0	SW	178	2·0	3·0	8·00	0·012	23
24	29·841	41·6	39·2	49·6	33·2	100·8	26·0	NNE	77	1·0	6·0	2·95	...	24
25	30·059	41·2	37·1	47·0	30·2	105·6	24·0	E	190	1·0	7·3	4·30	...	25
26	29·699	43·4	40·4	50·3	35·7	100·7	31·4	ENE	140	1·3	10·0	1·00	0·003	26
27	29·424	45·2	42·8	55·1	39·9	108·4	38·0	SW	192	1·0	5·3	5·40	0·028	27
28	29·120	45·6	43·6	50·8	39·8	102·4	31·9	SSE	246	2·7	8·0	2·40	0·269	28
29	29·286	45·5	43·3	51·5	35·3	84·6	27·8	Var.	440	3·3	9·0	0·80	0·229	29
30	29·475	47·0	45·1	52·7	44·9	96·4	35·2	SSW	97	3·0	9·7	1·25	0·010	30
31	29·569	44·0	41·7	52·5	35·8	91·0	33·9	WSW	108	0·7	9·0	0·90	...	31
Mean or Sum.	29·622	44·35	41·52	50·76	37·93	93·65	32·92	...	10611	3·15	7·49	97·30	2·677	Mean or Sum.

Weather.

1. Overcast. 2. Rain early, then fair. 3. Light rain after 3^h p.m. 4. Overcast; squally. 5. Fine. 6. Variable; rain 9^h–10$\frac{1}{2}^h$ p.m. 7. Fine to cloudy. 8. Fine generally. 9. Overcast. 10. Overcast. 11. Overcast till afternoon, then fine. 12. Fair. 13. Cloudy. 14. Frequent rain after 11^h a.m. 15. Fine generally; snow and rain showers 6^h–7^h a.m. 16. Fine intervals; rain early; snow and hail 0$\frac{1}{2}^h$ and 1^h p.m. 17. Fine intervals; rain and snow till 9^h a.m., and at noon and 5^h p.m. 18. Cloudy to fine. 19. Variable; showery. 20. Showery. 21. Fine intervals; rain afternoon. 22. Cloudy; rain after 4^h p.m. 23. Fine generally. 24. Fair. 25. Fine morning. 26. Overcast generally. 27. Overcast till 10^h a.m. 28. Rainy till noon, then fine intervals. 29. Frequent rain after noon. 30. Cloudy. 31. Cloudy.

APRIL, 1913.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·592	42·4	41·0	51·3	41·1	114·6	35·1	W	194	1·3	9·7	1·80	0·191	1
2	29·760	45·8	43·3	51·9	35·0	113·9	28·0	S	225	2·0	8·3	3·45	0·104	2
3	29·892	47·7	42·4	54·9	41·8	115·6	34·0	E	464	2·7	4·3	9·95	...	3
4	29·817	45·1	41·9	50·9	41·0	112·4	39·1	NNE	563	5·7	9·3	1·05	...	4
5	29·647	44·4	42·0	48·9	42·8	83·6	42·1	NNE	583	6·0	10·0	0·70	...	5
6	29·608	45·0	40·9	52·3	41·0	113·5	38·7	NNE	410	5·7	5·0	7·75	...	6
7	29·693	42·4	38·4	50·3	39·0	108·5	37·0	NNE	310	4·0	9·7	4·70	...	7
8	29·893	42·1	39·9	46·4	33·0	96·8	27·0	NNW	210	2·0	7·3	2·10	...	8
9	29·936	43·3	39·9	48·3	41·0	83·3	38·3	NNE	181	2·0	9·7	0·75	...	9
10	29·778	45·6	43·9	50·1	42·7	69·0	34·8	NNW	143	2·3	10·0	0·05	0·012	10
11	29·627	39·3	38·0	46·9	35·0	50·4	34·3	Var.	321	1·7	9·7	0·00	0·385	11
12	29·757	37·2	33·9	46·5	35·3	85·5	30·8	NNE	50	2·3	9·3	2·55	0·011	12
13	29·894	40·8	35·9	48·5	26·5	105·3	20·2	Var.	180	1·0	2·7	6·35	...	13
14	29·803	44·1	41·7	47·8	37·2	96·6	31·3	SSW	279	3·0	9·7	0·30	0·072	14
15	29·658	48·1	45·0	55·5	42·3	116·1	36·9	SSW	566	3·7	10·0	2·20	...	15
16	29·206	47·7	45·7	55·5	43·5	116·3	36·3	SW	232	4·0	6·7	5·90	0·457	16
17	29·331	43·5	40·5	50·7	33·8	112·3	24·9	SW	338	1·7	5·7	7·40	0·044	17
18	29·323	46·6	44·6	50·8	37·2	80·5	32·0	SSW	465	4·3	9·7	0·05	0·158	18
19	29·334	47·2	42·7	52·8	43·6	116·9	38·9	WSW	311	4·0	7·3	7·05	0·017	19
20	29·712	48·0	41·9	57·7	36·9	117·1	30·9	WSW	200	1·7	3·3	10·25	0·014	20
21	29·616	51·0	49·3	56·0	43·0	96·7	42·0	SE	126	1·7	9·7	0·40	0·054	21
22	29·855	53·9	52·1	63·2	50·0	118·6	46·6	NE	122	1·0	9·7	2·45	0·073	22
23	29·803	56·5	49·5	66·0	43·9	118·8	38·8	E	113	1·3	0·0	11·25	...	23
24	29·431	54·9	46·7	65·5	39·3	120·9	34·9	S	262	1·3	4·3	8·35	0·122	24
25	29·233	46·1	43·3	53·7	39·8	113·2	39·4	SW	426	1·7	9·7	1·90	0·249	25
26	29·212	48·5	46·1	54·0	37·7	79·2	34·0	S	595	5·3	10·0	0·25	0·094	26
27	29·167	52·8	51·0	56·6	49·0	91·3	47·4	S	399	5·3	10·0	0·30	0·123	27
28	29·525	53·2	50·6	61·7	48·0	119·4	44·2	S	221	3·7	10·0	2·70	0·223	28
29	29·723	53·8	51·6	65·1	44·5	112·6	36·1	SSE	248	1·3	9·0	3·60	1·405	29
30	29·618	50·5	46·5	55·5	48·8	98·6	46·7	WSW	107	1·7	8·0	1·00	...	30
Mean or Sum.	29·615	46·92	43·67	53·84	40·46	102·58	36·02	...	8844	2·85	7·93	106·55	3·808	Mean or Sum.

Weather.

1. Cloudy generally; rain $3\frac{1}{2}^h$–$7\frac{1}{2}^h$ p.m. 2. Cloudy; showers $0\frac{1}{2}^h$ and 6^h p.m. 3. Very fine till afternoon. 4. Cloudy. 5. Overcast. 6. Fine till $2\frac{1}{2}^h$ p.m. 7. Fine afternoon. 8. Overcast after 9^h a.m. 9. Overcast. 10. Gloomy. 11. Sleet midday, then rainy. 12. Cloudy. 13. Fine to fair. 14. Slight rain at times. 15. Fine early afternoon. 16. Rain till 11^h a.m., then fine. 17. Variable; showery midday. 18. Showery midday, then light rain. 19. Fine after 9^h a.m. 20. Very fine till evening. 21. Overcast. 22. Cloudy; showers 4^h and $5\frac{1}{2}^h$ p.m. 23. Very fine. 24. Very fine till early afternoon. 25. Fine intervals midday, then showery. 26. Light rain after noon. 27. Light rain at times. 28. Fine to overcast; rain afternoon. 29. Cloudy generally; thunderstorm with heavy rain $7\frac{1}{2}^h$–$9\frac{1}{2}^h$ p.m. 30. Overcast after 9^h a.m.

MAY, 1913.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·674	48·7	45·9	57·1	41·7	113·5	36·6	SW	98	1·0	7·3	5·05	0·423	1
2	29·657	49·7	45·4	59·1	40·2	126·2	36·0	W	138	1·0	3·0	11·20	...	2
3	29·394	47·0	45·1	54·2	40·7	95·4	35·0	SSE	268	1·7	10·0	0·50	0·279	3
4	29·183	45·4	44·4	52·8	41·9	95·3	41·1	N	243	2·3	9·3	1·00	0·332	4
5	29·437	48·8	47·4	58·0	47·0	102·0	44·6	NNW	95	1·7	9·7	1·75	...	5
6	29·324	45·5	43·6	51·5	43·9	71·2	38·5	S	186	2·0	9·0	0·05	0·225	6
7	29·413	46·3	44·5	54·8	36·0	114·0	28·6	S	333	2·3	9·7	2·80	0·096	7
8	29·335	48·6	46·6	51·1	47·1	70·3	45·2	SSE	189	3·3	10·0	0·00	0·165	8
9	29·361	50·3	47·4	54·8	45·9	97·0	42·0	SSE	212	2·0	7·0	1·85	0·203	9
10	29·514	52·4	48·2	60·7	46·5	124·4	37·3	S	213	2·3	5·7	11·65	0·003	10
11	29·677	52·0	49·2	60·1	45·4	120·4	40·4	S	204	1·3	7·0	4·80	0·185	11
12	29·690	50·8	49·6	55·1	46·0	85·6	42·1	ESE	213	2·3	10·0	0·00	0·280	12
13	29·877	57·6	53·4	67·1	50·9	120·0	50·2	NE	201	2·0	4·7	5·25	0·001	13
14	29·909	52·6	49·5	65·7	43·1	123·4	38·9	NE	433	3·7	4·0	9·55	...	14
15	29·921	46·5	43·4	55·7	43·4	118·0	43·3	NNE	409	4·7	5·3	8·30	...	15
16	29·770	49·7	46·5	62·6	42·0	118·1	40·6	NE	126	2·7	3·7	8·90	...	16
17	29·498	53·1	48·8	68·5	38·4	125·7	33·6	NW	246	1·0	3·3	8·45	...	17
18	29·618	48·7	43·2	58·4	40·1	128·6	35·3	WNW	244	3·0	4·7	10·65	0·036	18
19	29·766	49·1	42·8	56·8	37·6	123·5	31·7	W	193	2·0	4·0	9·30	0·017	19
20	29·825	52·4	49·5	59·4	41·4	117·5	34·2	SW	358	2·3	10·0	1·35	...	20
21	29·762	51·6	48·4	59·2	49·2	114·8	48·0	SW	329	4·0	9·7	2·65	0·117	21
22	29·869	51·6	47·8	59·1	42·9	108·0	39·3	WSW	276	2·7	7·7	6·10	0·004	22
23	29·923	56·6	53·8	65·5	53·0	125·1	50·2	WSW	249	2·7	9·3	8·60	...	23
24	30·058	60·7	56·6	71·7	52·5	135·0	49·2	WSW	114	1·0	7·0	5·50	...	24
25	30·029	67·2	59·9	77·5	51·8	132·0	43·8	SSW	83	1·0	0·0	14·60	...	25
26	29·937	69·8	62·9	80·0	52·0	135·3	46·8	SSE	67	0·7	2·0	12·20	...	26
27	29·816	62·9	59·4	77·6	56·8	123·6	51·7	WNW	137	1·0	4·0	6·50	0·241	27
28	29·796	64·8	57·0	74·0	49·1	133·3	44·4	SSW	199	2·0	6·0	5·30	...	28
29	29·638	63·6	57·6	75·0	56·1	135·5	54·1	SSE	164	1·0	7·3	3·95	...	29
30	29·451	63·2	58·4	74·6	53·9	135·5	51·0	S	377	3·3	2·3	10·50	0·078	30
31	29·651	53·5	48·8	60·8	48·9	122·9	46·0	SSW	133	3·0	6·7	5·55	0·013	31
Mean or Sum.	29·670	53·57	49·84	62·53	45·98	115·84	41·93	...	6730	2·16	6·43	183·85	2·698	Mean or Sum.

Weather.

1. Fine to overcast; thunderstorm 3h–4½h p.m. 2. Fine. 3. Rain after 2h p.m. 4. Rain till 10h a.m.; fair afternoon. 5. Generally overcast. 6. Rain afternoon. 7. Cloudy; showery. 8. Occasional light rain. 9. Cloudy; rain afternoon. 10. Fine. 11. Fine intervals; showery. 12. Rainy. 13. Cloudy to fine. 14. Fine generally. 15. Fine after 10h a.m. 16. Very fine after 10h a.m. 17. Very fine till 3h p.m. 18. Fine; shower 7¼h p.m. 19. Fine. 20. Generally overcast. 21. Cloudy; rain 7½h–8½h p.m. 22. Cloudy generally. 23. Cloudy to fine. 24. Fair. 25. Very fine. 26. Very fine to fine. 27. Fair; thunderstorm 5½h–6h p.m. 28. Fair. 29. Cloudy generally to fine. 30. Fine; thunderstorm 2h a.m. 31. Fine after noon.

JUNE, 1913.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·832	58·1	51·9	66·5	41·9	125·0	35·2	E	134	1·0	5·3	8·70	...	1
2	29·842	59·0	52·6	67·5	47·1	131·8	41·0	SSW	233	1·7	2·7	13·80	...	2
3	29·823	63·4	57·2	72·7	48·3	133·4	42·9	SSW	113	1·7	5·7	11·00	...	3
4	29·746	63·2	57·4	68·8	49·7	118·5	44·0	SSE	182	1·3	4·3	6·50	...	4
5	29·547	58·2	54·4	65·9	52·3	126·9	44·9	SSW	265	2·3	8·0	4·75	0·025	5
6	29·641	53·1	50·4	59·8	49·8	119·3	45·9	WSW	414	2·7	8·7	1·10	0·042	6
7	29·675	55·7	51·7	63·6	47·3	127·2	44·9	WSW	379	4·7	5·0	9·00	0·064	7
8	29·669	56·5	52·9	63·6	46·2	119·0	41·1	SW	290	3·3	6·3	5·60	0·157	8
9	29·867	53·8	49·2	62·1	44·0	118·6	38·9	SW	520	4·7	8·7	4·50	...	9
10	29·566	56·3	53·0	64·8	51·4	127·5	50·0	WSW	387	6·0	8·7	9·25	0·008	10
11	29·810	55·1	48·8	62·6	46·9	124·2	40·4	W	265	3·3	7·0	7·85	...	11
12	29·863	57·5	51·4	65·4	50·4	133·3	49·1	W	113	1·3	8·0	5·35	...	12
13	29·961	56·7	53·9	61·0	50·2	92·2	45·9	Var.	90	1·0	10·0	0·00	0·006	13
14	30·104	58·5	53·7	67·0	53·0	128·0	52·6	ESE	105	1·3	9·7	2·55	...	14
15	29·968	65·1	56·3	75·3	51·9	127·6	48·0	ENE	117	1·3	0·0	12·20	...	15
16	29·822	68·3	61·0	82·6	48·3	136·0	40·8	ENE	55	1·0	4·7	11·60	...	16
17	29·766	65·8	62·1	74·7	57·3	129·1	52·0	WSW	128	0·7	4·7	5·80	0·130	17
18	29·762	59·9	55·9	71·1	52·2	130·4	48·6	WSW	230	1·0	8·3	4·60	...	18
19	29·807	58·5	51·8	66·0	51·7	134·0	48·3	WSW	184	3·3	6·0	7·30	0·018	19
20	29·813	54·8	51·6	63·7	51·2	136·7	47·8	Var.	37	1·0	8·3	1·25	0·051	20
21	29·851	62·0	55·2	71·4	49·5	135·0	43·8	ESE	50	1·0	4·7	10·45	...	21
22	29·906	63·8	56·8	71·4	48·0	129·8	41·8	SW	185	1·0	6·0	7·80	...	22
23	29·795	54·9	51·7	63·5	54·0	114·5	47·7	SSW	257	3·0	6·7	3·40	0·066	23
24	29·796	54·4	49·2	59·6	52·4	92·7	46·4	WSW	292	2·3	10·0	0·55	...	24
25	29·849	57·8	52·6	64·6	50·6	108·0	48·3	NW	150	2·7	10·0	3·10	...	25
26	29·976	57·7	52·4	68·6	48·4	130·4	40·3	W	256	1·3	9·7	2·65	...	26
27	30·049	56·1	48·6	64·8	52·4	122·0	49·7	NW	239	3·3	5·7	8·50	...	27
28	30·119	64·8	57·4	74·4	47·8	135·4	40·3	W	253	3·0	3·7	11·05	...	28
29	30·108	67·1	58·9	77·7	56·6	131·9	49·5	NW	153	2·3	1·7	15·00	...	29
30	30·113	63·1	57·2	73·1	51·3	134·7	48·1	E	88	1·0	6·7	8·95	...	30
Mean or Sum.	29·848	59·31	53·91	67·79	50·07	125·10	45·27	...	6164	2·18	6·50	204·15	0·567	Mean or Sum.

Weather.

1. Fair. 2. Very fine to fine. 3. Fine. 4. Cloudy to fine. 5. Cloudy; shower 1¼ʰ p.m. 6. Overcast; slight rain midday. 7. Showery till 11ʰ a.m., then very fine. 8. Showery till 1ʰ p.m., then fine. 9. Fine to overcast. 10. Fair. 11. Fine till midday. 12. Cloudy generally. 13. Overcast. 14. Generally overcast. 15. Very fine. 16. Fine. 17. Rain 10ʰ a.m.–noon, otherwise fine. 18. Fine afternoon. 19. Fine intervals. 20. Generally overcast; showers till 2ʰ p.m. 21. Fine. 22. Fine to fair. 23. Overcast, becoming fine evening; rain 11ʰ a.m. 24. Overcast. 25. Generally overcast. 26. Fair intervals. 27. Fair to fine. 28. Fine. 29. Very fine. 30. Very fine till afternoon.

JULY, 1913.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	30·125	62·1	56·8	72·6	53·4	129·9	49·8	NE	73	0·7	4·3	9·30	...	1
2	30·048	60·1	56·1	71·7	54·0	123·8	51·8	NNE	190	0·7	10·0	3·05	0·028	2
3	29·870	59·3	56·0	64·8	58·2	98·7	55·6	N	91	1·3	10·0	0·15	...	3
4	29·754	59·0	56·4	65·2	53·7	107·2	47·0	N	99	1·7	10·0	0·50	0·018	4
5	29·701	56·2	53·3	62·2	51·6	97·6	51·3	Var.	43	0·7	10·0	0·05	0·028	5
6	29·521	52·2	51·0	61·0	47·6	115·6	43·2	NNW	75	1·0	10·0	0·35	0·071	6
7	29·684	54·0	50·7	61·0	50·0	115·5	49·6	N	106	1·7	10·0	0·90	0·043	7
8	29·830	54·4	49·7	64·0	46·3	122·4	39·4	WNW	121	1·3	8·7	6·40	0·008	8
9	29·751	56·3	51·7	65·9	49·2	135·1	43·8	S	62	1·0	9·3	1·10	...	9
10	29·601	57·5	54·7	62·6	53·8	99·2	49·8	WNW	98	0·7	8·7	0·20	0·086	10
11	29·756	59·9	55·2	69·1	48·0	121·4	42·9	NW	80	1·0	7·0	3·60	...	11
12	29·766	63·2	58·4	71·3	57·1	120·1	55·8	SW	143	1·3	9·3	3·95	...	12
13	29·778	62·0	56·9	68·7	55·2	108·0	52·9	SSW	99	1·0	8·7	0·45	...	13
14	29·676	61·8	57·0	68·3	57·8	120·9	55·1	W	178	1·0	9·7	0·35	0·079	14
15	29·695	58·0	55·4	67·2	53·0	97·5	51·7	NW	59	1·7	10·0	0·50	0·181	15
16	29·777	59·1	56·2	66·2	54·9	112·6	51·2	WSW	144	1·0	9·7	0·70	...	16
17	29·817	61·5	58·0	68·0	54·0	110·3	49·6	WSW	235	2·0	10·0	0·40	0·078	17
18	29·841	60·1	57·0	67·2	58·4	125·2	55·9	WNW	147	2·3	8·0	0·35	0·085	18
19	29·850	57·1	55·3	63·6	52·3	91·8	47·6	WNW	173	1·0	9·0	0·15	0·063	19
20	29·914	56·7	50·0	66·1	49·8	124·4	42·8	NNW	165	2·0	6·0	10·40	...	20
21	29·882	57·0	52·7	64·4	48·6	113·1	41·9	W	143	1·0	8·0	0·40	...	21
22	29·871	56·3	52·7	65·1	53·9	116·6	52·8	NNE	247	1·3	10·0	1·50	0·017	22
23	29·849	54·7	51·5	60·8	50·3	108·2	45·0	NNW	232	3·0	9·3	1·00	...	23
24	29·938	59·5	54·3	70·1	52·7	129·2	49·5	NE	193	2·0	5·3	11·80	...	24
25	29·958	58·0	53·7	65·3	50·0	118·3	44·9	NNE	215	2·3	6·0	5·50	...	25
26	29·991	55·2	52·8	70·5	52·3	118·8	51·0	NE	172	1·0	6·7	5·60	...	26
27	30·040	55·3	53·5	66·3	49·8	115·0	46·2	NE	59	1·0	6·7	4·75	...	27
28	29·968	62·7	57·0	78·0	50·3	132·2	44·8	NE	69	1·0	3·3	10·05	0·005	28
29	29·854	63·7	58·3	77·9	52·1	123·1	46·7	SSE	122	1·0	3·7	7·45	...	29
30	29·798	59·6	55·5	68·5	53·4	126·4	47·9	E	222	1·7	10·0	2·35	...	30
31	29·830	58·7	55·8	72·4	54·9	124·0	53·6	NNE	276	2·7	6·7	5·35	...	31
Mean or Sum.	29·830	58·43	54·63	67·29	52·47	116·20	48·75	...	4331	1·39	8·20	98·60	0·790	Mean or Sum.

Weather.

1. Very fine till afternoon. 2. Cloudy; showers evening. 3. Overcast. 4. Generally overcast. 5. Dull; slight rain after noon. 6. Light rain at times. 7. Occasional light rain. 8. Fine afternoon. 9. Cloudy to overcast. 10. Overcast; rain afternoon. 11. Fine early, then cloudy. 12. Fine intervals afternoon. 13. Cloudy. 14. Overcast; thunderstorm 11h–11½h p.m. 15. Dull; rain afternoon. 16. Generally overcast. 17. Overcast; rain after 8h p.m. 18. Overcast. 19. Overcast; rain 8h a.m.–noon. 20. Cloudy to fine. 21. Overcast. 22. Overcast to cloudy. 23. Generally overcast. 24. Fine. 25. Very fine after noon. 26. Very fine after 2h p.m. 27. Very fine after 2h p.m. 28. Very fine after 9h a.m. 29. Very fine, but hazy, after 9½h a.m. 30. Cloudy. 31. Fine 1h–8½h p.m.

AUGUST, 1913.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·987	60·9	56·3	71·3	56·0	134·0	55·9	NE	126	1·7	4·3	8·20	...	1
2	30·034	58·8	55·5	70·7	47·1	124·3	42·9	NNE	35	0·7	6·3	1·70	...	2
3	29·928	63·9	57·9	77·5	47·1	133·6	42·9	Calm	154	0·3	0·3	11·30	...	3
4	29·870	58·3	54·2	67·8	57·3	92·2	51·1	NE	177	3·0	9·7	0·00	...	4
5	29·807	58·4	50·4	65·6	43·0	135·0	37·9	NNE	108	1·0	5·3	9·50	...	5
6	29·776	57·2	51·2	66·7	51·0	126·9	43·9	N	92	1·3	5·0	8·70	...	6
7	29·806	57·3	52·4	64·5	48·0	116·2	40·9	SSW	71	1·0	9·0	1·80	0·009	7
8	29·677	58·3	52·5	66·8	47·2	124·0	42·4	Var.	98	0·7	7·0	6·10	...	8
9	29·576	53·9	51·4	61·5	44·1	113·5	39·0	WSW	141	1·0	8·3	1·15	0·098	9
10	29·668	60·2	53·4	67·6	46·8	140·0	43·9	WNW	213	1·0	5·3	8·55	0·044	10
11	29·707	61·4	57·7	69·5	55·1	129·4	54·1	WSW	146	2·0	7·3	3·15	0·064	11
12	29·910	61·7	56·6	67·7	54·3	125·9	49·0	NNE	95	0·7	8·3	4·80	...	12
13	29·875	59·4	55·9	65·1	55·2	118·4	54·1	WSW	196	2·0	9·3	0·70	...	13
14	29·845	60·8	56·7	66·2	55·2	95·6	50·0	NW	56	1·0	9·7	0·10	0·020	14
15	29·867	62·1	59·1	66·5	59·4	91·1	58·7	NE	12	0·7	9·7	0·00	0·016	15
16	29·885	62·9	59·1	74·3	57·1	126·0	50·9	Calm	61	0·3	8·7	1·45	...	16
17	29·951	64·7	58·6	73·5	57·1	124·6	52·2	NE	237	2·0	4·0	7·80	...	17
18	29·993	58·4	52·3	67·5	54·5	131·1	50·7	NE	152	2·3	7·3	5·65	...	18
19	29·926	55·1	51·2	60·3	43·8	80·1	38·1	N	64	1·0	9·7	0·10	...	19
20	29·911	59·3	53·7	71·2	48·2	119·5	39·8	Calm	121	0·3	3·7	9·50	...	20
21	29·904	63·9	57·5	74·6	48·0	131·4	42·0	WSW	363	2·0	4·7	10·00	...	21
22	29·713	65·1	61·3	71·3	61·0	111·7	58·6	SSW	365	4·3	10·0	1·40	...	22
23	29·643	58·4	53·7	67·7	56·4	131·0	51·2	W	284	1·3	5·0	6·65	0·080	23
24	29·794	58·1	53·8	67·6	50·8	128·2	47·0	WSW	96	2·0	7·7	5·50	0·220	24
25	30·008	59·3	54·2	72·6	44·1	133·0	40·1	Nearly Calm	31	0·0	1·7	11·90	...	25
26	30·038	64·8	57·0	77·0	45·0	130·3	39·5	ESE	129	0·7	4·0	9·35	...	26
27	29·964	63·4	58·1	73·5	56·5	120·9	55·2	NE	199	1·7	5·7	2·80	0·125	27
28	29·765	67·8	60·7	81·0	54·3	131·2	51·3	ENE	110	1·7	4·3	9·35	...	28
29	29·574	59·2	58·3	71·1	53·0	102·9	48·1	NNE	55	1·0	9·3	0·15	0·043	29
30	29·542	64·6	61·3	76·1	55·3	128·4	51·9	NW	155	1·3	9·0	4·30	0·070	30
31	29·703	60·2	58·0	68·9	60·1	75·6	58·8	NNW	107	1·0	10·0	0·00	0·014	31
Mean or Sum.	29·827	60·57	55·81	69·78	52·00	119·55	47·81	...	4249	1·32	6·76	151·65	0·803	Mean or Sum.

Weather.

1. Fine to very fine after 10½ʰ a.m. 2. Cloudy till 7ʰ p.m. 3. Very fine; hazy. 4. Overcast. 5. Fine to cloudy. 6. Fine to fair. 7. Cloudy; shower 3½ʰ p.m. 8. Fine generally till evening. 9. Cloudy; shower 6ʰ p.m. 10. Fine to fair. 11. Cloudy; rain early. 12. Fair. 13. Overcast. 14. Dull; rain after 10½ʰ p.m. 15. Dull. 16. Cloudy. 17. Fine generally. 18. Fine 9ʰ a.m.–3ʰ p.m. 19. Overcast. 20. Fine to very fine after 9ʰ a.m. 21. Very fine to overcast evening. 22. Fair intervals afternoon. 23. Fine after 11ʰ a.m.; rain 5ʰ–8½ʰ a.m. 24. Fair to fine after 10ʰ a.m.; slight thunderstorm 0½ʰ–0½ʰ p.m. 25. Very fine generally. 26. Very fine till 2½ʰ p.m. 27. Fair intervals; rain 2½ʰ–3½ʰ a.m. 28. Fine. 29. Overcast; rain afternoon. 30. Fine midday; rain morning. 31. Overcast.

SEPTEMBER, 1913.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·755	54·0	53·3	60·5	53·8	61·7	53·2	N	152	1·0	10·0	0·00	0·453	1
2	29·822	54·0	53·2	55·9	53·1	61·9	52·8	N	208	2·0	10·0	0·00	0·290	2
3	29·880	57·6	55·3	66·1	51·1	118·3	51·1	NE	223	1·0	9·3	1·75	...	3
4	29·843	60·7	57·3	66·9	57·6	105·4	56·3	NE	235	2·0	10·0	0·55	...	4
5	29·877	59·8	57·0	63·4	58·8	77·9	58·0	NE	260	1·3	10·0	0·00	0·051	5
6	30·056	59·7	55·8	67·8	55·7	111·4	54·3	NE	285	3·3	9·0	1·10	...	6
7	30·110	57·4	53·7	63·8	49·0	113·3	45·7	NNE	203	3·0	4·0	2·30	...	7
8	30·035	56·5	52·7	67·9	49·0	127·1	43·9	NNE	70	1·3	5·3	9·05	...	8
9	29·912	55·7	53·4	63·3	47·9	105·1	41·5	NW	98	1·0	8·0	1·00	0·167	9
10	30·057	54·0	50·0	63·5	41·9	118·6	36·3	N	107	1·0	5·0	7·45	0·004	10
11	29·870	60·9	56·7	68·6	49·5	133·9	43·2	WSW	178	1·0	7·0	4·85	...	11
12	29·538	60·6	57·1	65·8	52·9	107·8	49·2	SSW	216	2·3	7·3	1·70	...	12
13	29·196	60·3	56·1	67·9	55·5	121·3	52·8	SE	321	3·0	9·0	5·85	...	13
14	29·134	54·3	49·2	61·6	52·1	120·9	46·1	S	212	3·7	2·3	8·50	0·152	14
15	29·314	52·8	50·2	60·2	46·0	113·9	38·2	SE	92	1·0	3·0	5·10	0·064	15
16	29·346	53·2	50·0	64·0	40·2	113·0	35·5	NE	128	1·3	6·0	2·00	...	16
17	29·390	54·1	52·3	59·8	49·2	113·8	42·0	N	58	1·0	9·0	1·40	0·037	17
18	29·638	55·9	54·2	66·1	50·3	124·6	46·3	ENE	32	1·0	7·7	3·45	0·084	18
19	29·699	57·1	54·2	66·8	48·9	116·6	45·8	SSW	200	0·7	9·3	4·00	0·201	19
20	29·691	54·3	50·4	61·9	52·0	114·7	44·2	WNW	113	1·7	3·7	7·95	0·065	20
21	29·943	55·9	53·9	64·6	51·0	104·3	44·6	NW	36	0·7	6·7	3·50	...	21
22	29·892	53·8	52·6	60·0	48·2	94·2	42·9	SW	147	0·7	10·0	0·15	0·184	22
23	29·719	57·9	56·0	61·9	53·7	76·3	52·8	SSE	217	2·0	10·0	0·00	0·114	23
24	29·680	62·8	57·3	71·6	54·1	122·4	47·0	SSE	228	2·3	0·0	10·00	...	24
25	29·693	62·5	58·6	72·4	55·3	122·7	45·3	SSE	99	1·7	7·3	6·15	...	25
26	29·760	64·7	61·1	72·1	57·4	122·6	53·9	SSE	155	1·3	8·3	1·70	...	26
27	29·723	66·7	60·9	77·2	60·2	124·3	52·6	SSE	138	1·0	1·7	9·85	...	27
28	29·735	62·4	58·2	73·2	50·3	118·0	42·0	ESE	127	2·0	0·0	10·00	...	28
29	29·790	54·4	53·6	62·1	49·8	100·6	44·1	NE	178	1·0	6·7	2·10	0·007	29
30	29·717	56·7	54·7	65·8	50·3	114·4	44·2	NE	272	2·0	6·0	6·05	...	30
Mean or Sum.	29·730	57·69	54·63	65·42	51·49	109·37	46·86	...	4988	1·61	6·72	117·50	1·873	Mean or Sum.

Weather.

1. Rainy. 2. Occasional rain. 3. Fine intervals afternoon. 4. Overcast. 5. Overcast; slight rain evening. 6. Generally overcast. 7. Fair. 8. Fine. 9. Generally overcast; rain afternoon. 10. Fine to cloudy. 11. Fine generally. 12. Cloudy. 13. Fine afternoon. 14. Fine; rain $0\frac{1}{2}^h$–2^h a.m. 15. Changeable; showery. 16. Cloudy. 17. Generally overcast. 18. Fine intervals afternoon; rain 5^h–7^h p.m. 19. Fine to cloudy; rain after $8\frac{1}{2}^h$ p.m. 20. Fine generally. 21. Fine after noon. 22. Light rain after 2^h p.m. 23. Overcast; light rain early. 24. Very fine. 25. Fine after 8^h a.m. 26. Cloudy. 27. Very fine. 28. Very fine. 29. Overcast till 3^h p.m., then fine. 30. Fair to fine.

OCTOBER, 1913.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·630	59·0	55·3	66·5	54·1	113·0	50·2	NE	176	2·3	8·7	2·45	...	1
2	29·631	57·6	56·1	63·2	52·7	96·4	48·0	NE	32	0·7	9·7	0·35	1·069	2
3	29·692	55·9	55·4	60·2	54·1	77·1	48·6	Calm	24	0·0	10·0	0·15	0·706	3
4	29·497	55·2	54·4	60·5	51·0	100·1	47·8	SSE	73	1·0	9·3	0·90	0·134	4
5	29·348	52·6	51·8	56·6	49·4	84·5	43·9	W	60	0·7	9·0	0·05	0·224	5
6	29·433	52·5	49·8	62·8	45·0	121·3	39·0	ESE	183	0·7	5·3	5·25	0·007	6
7	29·237	54·4	53·5	59·5	48·3	111·9	43·5	ESE	192	2·0	9·3	1·45	0·428	7
8	29·148	53·7	52·3	57·4	52·0	88·1	47·2	SSW	181	2·7	9·7	0·40	0·086	8
9	29·694	52·6	49·9	60·1	49·7	114·0	42·4	N	79	0·7	7·0	6·20	0·042	9
10	29·777	51·9	47·4	57·6	42·8	95·8	35·8	ESE	239	2·3	8·3	1·75	...	10
11	29·699	50·5	49·3	52·2	49·6	58·1	44·0	SE	55	1·0	10·0	0·00	0·346	11
12	30·063	52·8	51·1	61·2	43·1	106·9	37·6	SSW	81	0·7	6·7	4·55	0·007	12
13	30·199	54·7	53·5	62·8	48·8	106·7	39·0	SSE	206	1·0	7·0	3·15	0·007	13
14	30·022	55·7	53·5	61·1	51·3	97·9	47·8	S	234	1·7	9·7	0·40	...	14
15	29·972	53·2	49·8	57·2	49·7	109·1	41·2	NW	93	2·0	6·7	4·20	0·087	15
16	30·088	50·0	48·0	59·6	43·7	94·9	37·2	Var.	55	1·0	1·0	7·30	...	16
17	29·941	50·9	49·1	57·5	44·0	97·9	36·9	S	135	1·0	9·0	2·70	0·005	17
18	29·826	52·8	49·7	60·4	48·4	118·7	38·6	SSW	156	1·3	1·7	7·80	...	18
19	29·589	55·5	53·6	61·4	50·9	108·3	46·0	SSE	319	2·0	7·3	3·65	...	19
20	29·452	57·2	54·2	62·5	54·2	112·2	50·8	SSE	211	2·3	6·7	3·90	0·520	20
21	29·315	49·3	46·7	56·1	47·4	58·8	44·7	SW	104	1·0	10·0	0·00	0·030	21
22	29·578	48·2	45·5	57·0	41·0	111·3	34·8	SSE	*...	1·3	1·0	6·00	0·008	22
23	29·909	45·0	43·0	55·0	38·5	94·8	32·7	NNE	...	0·7	4·0	5·15	...	23
24	30·024	39·0	38·6	47·5	35·0	89·9	30·2	Calm	...	0·3	6·7	2·50	0·004	24
25	29·747	45·9	44·6	60·7	31·7	102·2	29·3	Calm	...	0·3	2·7	4·75	0·003	25
26	29·407	53·1	52·7	56·5	48·0	60·1	42·4	SSW	...	1·0	7·0	0·00	0·359	26
27	29·292	55·3	53·8	59·7	47·1	81·2	37·9	SSE	...	2·0	7·7	0·10	0·028	27
28	29·098	55·8	53·9	62·1	52·6	99·7	47·3	SSE	...	2·7	8·7	2·20	0·229	28
29	28·991	55·9	52·7	61·2	51·0	108·5	45·9	SSE	377	3·3	2·0	4·40	0·246	29
30	29·283	51·6	49·8	57·4	47·9	104·9	43·6	S	287	3·0	7·0	3·35	0·141	30
31	29·599	49·0	45·9	56·8	44·0	105·1	38·9	SSW	145	1·7	3·7	6·80	0·039	31
Mean or Sum.	29·619	52·48	50·48	59·04	47·32	97·72	41·72	...	(3697)	1·43	6·86	91·85	4·755	Mean or Sum.

Weather.

1. Cloudy to fine. 2. Overcast; thunderstorms afternoon. 3. Dull; rain early morning. 4. Overcast; heavy rain 3h p.m. 5. Overcast; rainy morning. 6. Fair. 7. Cloudy; rain at times. 8. Overcast; showers. 9. Fine. 10. Cloudy. 11. Overcast; rain afternoon. 12. Fine generally. 13. Fine generally after 11h a.m. 14. Overcast. 15. Very fine morning. 16. Very fine. 17. Fine to cloudy. 18. Very fine. 19. Fair intervals. 20. Fine till 11h a.m.; rain night. 21. Overcast. 22. Fine. 23. Fine. 24. Overcast to fine. 25. Fine. 26. Overcast till evening; rain 11h a.m.–4½h p.m. 27. Cloudy. 28. Cloudy; rain 9h a.m. and in evening. 29. Fine till afternoon, then rainy. 30. Fine intervals till 2h p.m., then rain at times. 31. Fine.

* Oct. 22–29. Anemometer dismounted for repair.

NOVEMBER, 1913.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·588	50·3	47·9	57·8	45·3	108·0	39·3	S S W	344	2·0	5·0	5·75	...	1
2	29·514	54·2	51·3	58·9	48·5	105·7	44·0	S S W	393	3·3	9·7	1·50	0·228	2
3	29·747	49·9	46·7	55·0	43·6	105·2	36·9	S W	157	3·3	2·0	5·80	...	3
4	29·701	48·7	45·7	55·5	38·4	100·5	29·7	S S E	181	1·7	6·0	5·65	0·006	4
5	29·403	47·5	45·1	54·0	42·9	100·8	37·5	S W	216	1·7	1·3	3·15	0·026	5
6	29·141	46·2	44·1	52·5	39·6	101·0	32·4	Var.	143	1·3	8·0	3·10	0·199	6
7	29·444	44·4	42·2	50·8	39·0	96·1	34·8	W N W	204	2·0	5·7	6·00	...	7
8	29·405	47·4	44·9	53·5	39·8	104·3	30·5	S S W	133	3·0	5·0	5·30	0·107	8
9	29·496	44·5	42·7	54·9	30·6	92·2	24·5	S E	168	0·7	4·7	5·55	0·006	9
10	29·401	54·4	53·3	57·0	49·0	69·0	44·1	S S E	121	1·3	10·0	0·10	0·488	10
11	29·214	50·9	49·4	58·5	44·4	102·1	37·8	S	422	2·3	5·7	3·45	0·113	11
12	28·992	52·2	50·0	56·2	49·0	94·4	45·0	S S W	354	3·7	10·0	2·95	0·373	12
13	29·034	44·8	43·1	50·6	41·7	67·5	40·0	W S W	362	5·0	9·0	0·20	0·394	13
14	29·150	47·2	44·3	52·2	43·8	102·5	37·9	W S W	369	4·3	8·7	4·80	0·162	14
15	29·423	46·0	43·1	50·9	40·8	96·8	36·2	W S W	373	3·3	3·7	6·30	0·006	15
16	29·706	49·8	46·7	53·5	44·6	81·9	38·3	W S W	465	3·3	9·3	0·80	0·005	16
17	29·848	55·2	52·3	56·5	51·0	98·1	47·8	S W	474	4·3	7·7	1·35	...	17
18	29·786	51·4	48·6	56·5	44·6	84·3	39·7	S S W	377	4·7	6·7	1·05	0·013	18
19	30·135	45·1	41·7	49·5	38·7	90·9	33·1	S W	462	3·3	6·0	3·80	...	19
20	29·832	51·2	48·1	52·9	46·3	65·9	44·5	S W	549	5·0	10·0	0·00	0·007	20
21	29·557	50·3	49·2	53·6	46·1	58·6	44·4	W S W	187	3·7	10·0	0·00	0·350	21
22	30·097	38·4	37·1	49·2	33·9	85·2	25·0	N N W	27	0·7	0·3	6·60	...	22
23	29·899	38·3	38·0	47·1	25·1	64·4	21·4	S S E	157	1·0	10·0	1·85	0·005	23
24	29·770	43·4	41·8	48·9	40·8	90·4	31·9	S S W	189	1·3	3·7	3·90	0·004	24
25	29·976	45·0	43·4	51·5	36·5	74·9	27·7	S W	262	1·0	5·7	1·20	...	25
26	30·062	49·5	47·3	55·3	43·7	80·1	36·0	W S W	194	1·0	4·3	0·50	...	26
27	30·148	48·1	46·6	53·5	39·4	83·6	31·5	W S W	226	2·0	10·0	1·40	...	27
28	30·188	47·8	46·9	52·6	44·2	60·9	32·9	W S W	177	1·7	3·3	1·30	...	28
29	30·144	50·0	49·0	52·0	42·5	75·0	33·0	W S W	383	1·7	10·0	1·25	0·004	29
30	30·039	52·3	50·3	54·6	51·1	93·3	48·3	W S W	385	3·0	8·7	3·40	...	30
Mean or Sum.	29·661	48·15	46·03	53·52	42·16	87·79	36·20	...	8454	2·55	6·67	88·00	2·496	Mean or Sum.

Weather.

1. Fine. 2. Fine intervals midday; rain early and after 8h p.m. 3. Fine. 4. Fine till 3h p.m. 5. Showery afternoon, otherwise fine to very fine. 6. Fine forenoon, rain evening. 7. Fine after 10h a.m. 8. Fine after 10h a.m.; rain early. 9. Fine till 3h p.m. 10. Overcast; rain at night. 11. Changeable; showery. 12. Fine intervals; heavy rain 4h a.m. 13. Showery; squally. 14. Fine after 9½h a.m.; rain early. 15. Fine till afternoon. 16. Cloudy. 17. Cloudy. 18. Cloudy; fine night. 19. Fine to overcast. 20. Overcast. 21. Rainy. 22. Very fine. 23. Fine to overcast. 24. Fine after 10½h a.m. 25. Overcast after 11h a.m. 26. Cloudy to fair. 27. Fair intervals afternoon. 28. Overcast 9h a.m. till afternoon, otherwise very fine. 29. Fine intervals afternoon. 30. Fine 9h a.m. to noon; then cloudy.

DECEMBER, 1913.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·912	50·6	48·2	53·0	47·9	61·2	45·6	W	138	1·3	10·0	0·00	0·039	1
2	29·810	47·8	46·5	52·5	44·4	58·9	43·6	S S W	520	1·7	10·0	0·05	0·018	2
3	29·341	51·5	48·1	53·6	49·0	85·8	46·8	S S W	569	6·0	9·3	0·30	0·068	3
4	29·342	39·3	37·0	52·0	36·1	80·7	33·6	W S W	461	4·0	9·3	3·00	0·111	4
5	29·516	44·1	41·4	48·2	35·1	90·7	30·0	W S W	123	2·7	7·7	3·40	0·007	5
6	29·447	40·7	39·4	42·0	39·4	44·3	35·8	E	96	1·0	10·0	0·00	0·222	6
7	29·855	40·2	38·9	42·9	36·6	46·9	33·8	S S E	158	0·7	10·0	0·00	0·002	7
8	29·968	49·0	47·7	53·4	42·4	60·1	36·1	S S W	372	2·0	9·3	0·00	0·007	8
9	29·843	50·0	47·8	53·3	46·5	62·5	39·4	W S W	290	3·7	8·3	0·00	0·003	9
10	30·004	45·1	42·5	48·7	42·7	57·9	36·8	W N W	197	1·7	7·7	0·05	...	10
11	29·969	44·6	42·2	47·7	39·5	79·5	33·7	W S W	312	1·0	10·0	0·55	...	11
12	29·765	49·6	46·7	53·3	44·0	81·8	38·9	W S W	191	3·7	9·3	0·60	...	12
13	30·052	40·6	38·6	46·9	36·7	85·1	27·6	W S W	261	2·0	3·3	6·30	...	13
14	30·094	40·5	38·5	46·7	37·0	85·0	30·2	S W	202	1·3	3·7	4·85	...	14
15	30·000	48·4	47·2	50·1	39·5	55·9	30·0	S S W	350	2·3	10·0	0·00	...	15
16	29·933	45·1	40·9	48·3	41·0	90·2	35·4	W	349	3·3	1·3	4·40	...	16
17	30·227	43·7	41·4	46·6	41·8	65·7	37·5	N	206	2·7	8·0	0·10	0·022	17
18	30·307	39·1	38·4	43·1	36·6	57·2	29·6	N N E	196	1·0	6·7	0·00	0·038	18
19	30·308	35·0	34·5	40·9	30·0	48·4	25·7	N E	179	1·7	6·7	1·10	0·026	19
20	30·351	40·3	38·3	43·0	36·0	82·9	28·8	E N E	157	2·0	9·0	3·25	0·001	20
21	30·418	36·2	34·6	41·3	30·2	45·4	23·5	N N E	99	0·7	7·7	0·00	...	21
22	30·108	35·1	33·8	36·8	30·1	40·8	24·0	Nearly Calm	47	0·3	10·0	0·00	...	22
23	29·621	34·4	33·9	38·2	30·0	43·0	24·0	W	132	0·7	10·0	0·00	0·081	23
24	29·643	34·8	33·0	41·5	31·1	78·9	23·8	W	202	1·0	0·0	5·20	0·009	24
25	29·945	38·4	37·1	43·7	30·2	52·0	22·2	W S W	462	1·7	8·0	0·00	0·004	25
26	29·716	48·8	46·0	49·4	43·0	53·1	38·8	S W	563	5·7	10·0	0·00	0·004	26
27	29·509	39·3	36·5	49·5	38·0	81·9	32·9	W S W	298	3·0	2·0	3·55	0·201	27
28	29·223	33·2	32·1	38·5	31·0	67·0	22·5	W N W	269	2·0	3·0	3·05	...	28
29	29·428	33·4	32·6	35·2	29·8	41·9	25·7	N N W	278	2·7	9·7	0·00	0·075	29
30	29·908	29·7	28·6	34·4	28·6	57·8	23·8	N N W	207	1·3	0·3	4·80	0·003	30
31	30·336	28·2	26·2	36·4	23·8	70·0	17·5	N	118	1·0	3·3	6·30	0·004	31
Mean or Sum	29·868	41·18	39·31	45·52	37·03	64·92	31·54	...	8002	2·13	7·21	50·85	0·945	Mean or Sum.

Weather.

1. Overcast; rain 8^h–9½^h a.m. 2. Overcast. 3. Overcast; squally; rain 8½^h–9½^h p.m. 4. Variable; showery. 5. Fine midday. 6. Light rain after 10½^h a.m. 7. Overcast. 8. Overcast. 9. Overcast. 10. Overcast generally. 11. Overcast to cloudy. 12. Cloudy to overcast. 13. Very fine till evening. 14. Very fine to fine. 15. Overcast. 16. Very fine till 1^h p.m. 17. Overcast. 18. Overcast till evening; rain 3^h p.m. 19. Overcast after 10^h a.m. 20. Fine to cloudy. 21. Overcast till evening. 22. Gloomy. 23. Gloomy; light rain 0^h–7½^h p.m. 24. Very fine generally. 25. Dull. 26. Overcast. 27. Fine; rain early. 28. Fine to cloudy. 29. Frequent snow showers. 30. Very fine to fine. 31. Very fine till 7^h p.m.

Indications of Schönbein's Ozonometer, observed at Noon and 8^h *p.m. of each day, during the Year* 1913.

Day.	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h
1	0	1	1	0	1	2	2	1	5	2	6	5	6	4	8	6	0	0	8	5	0	0	5	0
2	0	0	5	0	8	0	3	2	4	6	7	4	7	5	8	5	5	7	4	0	7	5	0	0
3	0	0	8	5	6	7	6	7	2	1	6	2	5	3	5	7	7	5	0	0	4	0	4	4
4	0	0	4	0	2	5	7	9	5	6	4	4	0	0	6	5	6	7	0	4	0	0	5	7
5	1	1	1	2	7	2	7	8	6	5	5	5	7	3	7	7	5	5	2	0	2	0	6	0
6	0	0	0	5	5	3	9	7	1	5	7	6	4	6	5	7	6	5	2	1	1	0	0	0
7	2	0	2	4	6	0	7	7	3	3	9	6	5	5	4	1	6	5	2	0	1	0	0	0
8	3	0	5	0	5	1	4	1	7	1	7	7	4	5	7	4	6	5	3	2	2	0	0	0
9	2	0	5	0	1	5	7	3	1	2	5	5	2	5	5	3	0	3	1	3	0	0	0	0
10	0	0	0	0	0	0	5	1	4	7	7	5	1	1	8	5	2	1	2	1	0	0	2	1
11	0	0	0	0	5	1	5	1	5	6	6	5	1	5	3	4	3	0	0	0	0	1	1	0
12	4	0	0	0	0	0	7	2	8	9	6	3	1	3	5	6	0	0	0	0	4	0	4	1
13	0	0	0	0	0	2	6	0	7	6	3	4	7	5	6	5	3	4	0	0	8	5	0	0
14	0	0	0	0	7	6	4	1	7	7	5	4	5	3	6	3	8	1	1	1	4	0	0	0
15	2	0	0	0	8	5	4	7	7	8	7	5	2	2	0	0	5	3	3	0	5	0	0	0
16	0	0	0	0	10	5	5	6	7	5	6	4	0	4	1	6	2	4	0	0	5	1	4	3
17	0	0	3	4	7	4	4	5	4	6	2	4	2	5	6	5	6	2	0	0	5	4	2	0
18	0	0	7	5	3	3	6	4	8	7	6	4	5	4	9	6	4	5	2	0	5	2	0	0
19	0	0	5	5	8	9	7	7	7	6	7	5	3	2	6	4	0	1	0	0	2	1	0	1
20	2	0	6	2	8	4	7	3	2	5	6	6	7	4	4	5	6	4	2	0	4	1	3	0
21	0	0	5	0	6	8	3	4	7	7	5	4	6	2	5	5	0	3	0	0	7	0	1	0
22	0	0	0	0	5	3	1	0	8	7	5	6	7	4	5	4	0	0	0	0	0	0	0	0
23	7	7	2	0	6	1	6	3	7	6	4	5	6	3	8	6	0	1	0	0	0	0	0	0
24	6	0	0	0	1	4	5	5	6	4	7	5	6	4	8	5	4	6	0	0	0	0	0	0
25	2	0	1	0	4	6	7	7	5	4	6	3	8	5	2	4	3	0	0	0	0	0	0	0
26	0	0	0	0	7	6	6	8	4	3	4	5	8	6	5	4	3	0	0	0	0	0	6	4
27	0	0	1	0	5	1	7	4	1	4	6	6	8	5	8	5	4	5	0	0	0	0	0	2
28	0	0	2	0	2	4	5	2	4	5	6	4	6	4	7	6	5	6	1	0	0	0	1	1
29	0	0	...	...	6	6	6	6	3	3	5	3	2	6	5	4	6	2	3	1	0	0	0	0
30	0	0	...	...	6	0	7	1	4	6	5	4	6	4	4	4	6	4	5	0	4	6	2	0
31	9	1	...	...	1	0	...	...	6	5	...	...	8	8	2	2	...	...	2	0	..	...	0	0
Means	1·3	0·3	2·3	1·1	4·7	3·3	5·5	4·1	5·0	5·1	5·7	4·6	4·7	4·0	5·4	4·6	3·7	3·1	1·4	0·6	2·3	0·9	1·5	0·8

SUMMARY OF THE WEATHER AND REMARKABLE PHENOMENA
1913.

JANUARY.

Temperature.

	°
Highest, air, on the 5th at 1h 20m p.m.	51·1
Lowest, air, on the 13th at 7h 15m a.m.	29·7
Highest, sun, on the 18th	88·9
Lowest, grass, on the 22nd	23·0

*Rain on the 1st, 4th, 5th, 11th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 28th, 29th, 30th, and 31st.
Snow on the 14th, 22nd, and 26th.
Hail on the 15th, 19th, and 31st.
Sleet on the 14th.
Fog on the 13th, 18th, 22nd, and 29th.
Gale on the 23rd.
Solar halo on the 1st, 16th, 17th, 18th, 20th, 22nd, 24th, 25th, 26th, and 27th (with bright contact arch).
Parhelia on the 18th, 22nd, 26th, and 27th (with 46° halo and contact arch).
Lunar halo on the 17th, 18th, 19th, 20th, and 23rd.
Lunar corona on the 17th and 18th.
Zodiacal light on the 31st.
Lightning on the 30th, 8h p.m.

FEBRUARY.

Temperature.

	°
Highest, air, on the 9th at 0h 50m p.m.	54·3
Lowest, air, on the 19th at 6h 55m a.m.	28·1
Highest, sun, on the 27th	100·0
Lowest, grass, on the 23rd	19·8

Rain on the 1st, 2nd, 5th, 6th, 7th, 9th, 10th, 12th, 13th, 14th, 15th, 22nd, 26th, and 27th.
Hail on the 17th.
Sleet on the 22nd.
Fog on the 11th, 12th, 13th, 14th, 15th, and 22nd.
Gale on the 7th.
Solar halo on the 2nd, 4th, 6th, 8th, 10th, 23rd, and 24th.
Parhelia on the 2nd and 8th.
Lunar halo on the 23rd.
Zodiacal light on the 4th.

MARCH.

Temperature.

	°
Highest, air, on the 11th at 3h 5m p.m.	54·7
Lowest, air, on the 18th at 6h 35m a.m.	28·6
Highest, sun, on the 21st	110·1
Lowest, grass, on the 18th	21·9

Rain on the 2nd, 3rd, 5th, 6th, 9th, 14th, 15th, 16th, 17th, 19th, 20th, 21st, 22nd, 23rd, 27th, 28th, 29th, and 30th.
Snow on the 8th, 15th, 16th, and 17th.
Hail on the 8th, 16th, 20th, 21st, and 28th.
Fog on the 12th and 13th.
Gale on the 15th, 9h p.m.–16th, 2½h a.m.; 19th; and 22nd, 11h p.m.–23rd, 2h a.m.
Solar halo on the 6th, 7th, 16th, 18th, 21st, 23rd, 26th, 27th, 29th, and 31st.
Parhelion on the 23rd.
Lunar halo on the 16th and 17th.
Lunar corona on the 15th and 18th.
Zodiacal light on the 3rd and 8th.
Thunderstorm on the 20th, 4h 40m p.m. (slight); and 22nd, 4¼h–4½h p.m. (slight).
Lightning on the 21st, evening.

APRIL.

Temperature.

	°
Highest, air, on the 29th, at 3h 20m p.m.	64·9
Lowest, air, on the 13th at 5h 0m a.m. / 5h 45m a.m.	28·3
Highest, sun, on the 24th	120·9
Lowest, grass, on the 13th	20·2

Rain on the 1st, 2nd, 10th, 11th, 12th, 14th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 24th, 25th, 26th, 27th, 28th, and 29th.
Hail on the 1st, 2nd, 17th, 18th, 25th, and 29th.
Sleet on the 11th.
Solar halo on the 2nd, 3rd, 9th, 17th, 18th, 20th, 23rd, 24th, 25th, and 29th.
Parhelia on the 20th, 23rd, and 29th.
Lunar halo on the 13th, 17th, and 19th.
Lunar corona on the 13th, 17th, and 19th.
Thunderstorm on the 25th, 6½h p.m. (slight); and 29th, 7¼h–9½h p.m. (heavy).
Thunder on the 17th, 1h p.m.; 22nd, 4h p.m.; and 25th, 6h p.m.

* Amounts of Rainfall under 0in·005 are not included in this summary.

MAY.

Temperature.

Highest, air, on the 26th at $3^h\ 50^m$ p.m. 78°·0
Lowest, air, on the 7th, at
$3^h\ 45^m$ a.m. / $4^h\ 50^m$ a.m. 36°·3
Highest, sun, on the 29th and 30th ... 135°·5
Lowest, grass, on the 7th ... ... 28°·6

Rain on the 1st, 3rd, 4th, 6th, 7th, 8th, 9th, 11th, 12th, 18th, 19th, 21st, 27th, 30th, and 31st.
Hail on the 1st, 7th, 19th, and 27th.
Fog on the 17th.

Solar halo on the 1st, 3rd, 5th, 9th, 14th, 17th, 22nd, 27th, and 28th.
Parhelia on the 9th and 28th.
Lunar halo on the 19th.
Lunar corona on the 11th.
Thunderstorm on the 1st, 3^h-$4\frac{1}{2}^h$ p.m. and $6\frac{1}{2}^h$ p.m. (very slight); 27th, $5\frac{1}{4}^h$-6^h p.m. and $8\frac{3}{4}^h$-9^h p.m. (slight); and 30th, 2^h a.m.
Lightning and thunder on the 26th, after 9^h p.m.; and 27th, after $4\frac{1}{2}^h$ p.m.
Lightning on the 21st, $8\frac{1}{2}^h$-$9\frac{1}{2}^h$ p.m.; and 29th, after $10\frac{1}{2}^h$ p.m.
Thunder on the 11th, $2\frac{1}{4}^h$ p.m.; and 29th, afternoon.

JUNE.

Temperature.

Highest, air, on the 16th at $4^h\ 55^m$ p.m. 79°·5
Lowest, air, on the 1st at $3^h\ 50^m$ a.m. 43°·9
Highest, sun, on the 20th ... ... 136°·7
Lowest, grass, on the 1st ... ... 35°·2

Rain on the 5th, 6th, 7th, 8th, 10th, 13th, 17th, 19th, 20th, and 23rd.

Solar halo on the 1st, 2nd, 3rd, 4th, 8th, 9th, 11th, 16th, 17th, 27th, and 30th.
Parhelion on the 2nd.
Lightning on the 5th, $0^h\ 5^m$ a.m.
Thunder on the 17th, 10^h-11^h a.m.

JULY.

Temperature.

Highest, air, on the 29th at $4^h\ 15^m$ p.m. 77°·2
Lowest, air, on the 8th, at $4^h\ 35^m$ a.m. 47°·2
Highest, sun, on the 9th ... ... 135°·1
Lowest, grass, on the 8th ... ... 39°·4

Rain on the 2nd, 4th, 5th, 6th, 7th, 8th, 10th, 14th, 15th, 17th, 18th, 19th, 22nd, and 28th.

Fog on the 28th and 29th.
Solar halo on the 1st and 9th.
Thunderstorm on the 14th, 11^h-$11\frac{1}{2}^h$ p.m.
Lightning and thunder on the 15th, 2^h p.m.
Lightning on the 14th, after $9\frac{3}{4}^h$ p.m.
Thunder on the 10th, 1^h p.m.

AUGUST.

Temperature.

Highest, air, on the 28th at $3^h\ 15^m$ p.m. 79°·1
Lowest, air, on the 25th at $5^h\ 45^m$ a.m. 45°·3
Highest, sun, on the 10th ... ... 140°·0
Lowest, grass, on the 5th ... ... 37°·9

Rain on the 7th, 9th, 10th, 11th, 14th, 15th, 23rd, 24th, 27th, 29th, 30th, and 31st.

Fog on the 2nd, 3rd, 16th, 29th, and 30th
Solar halo on the 2nd, 7th, 9th, 21st, and 26th.
Lunar halo on the 21st.
Thunderstorm on the 24th, $0\frac{1}{4}^h$-$0\frac{1}{2}^h$ p.m. (slight).
Lightning on the 29th, 9^h-10^h p.m.; and 30th, night.

SEPTEMBER.

Temperature.

Highest, air, on the 27th at $2^h\ 30^m$ p.m.	74·2
Lowest, air, on the 16th at $3^h\ 40^m$ a.m.	41·4
Highest, sun, on the 11th	133·9
Lowest, grass, on the 16th	35·5

Rain on the 1st, 2nd, 5th, 9th, 14th, 15th, 17th, 18th, 19th, 20th, 22nd, 23rd, and 29th.
Fog on the 18th, 19th, 22nd, and 29th.
Solar halo on the 15th, 18th, 19th, and 22nd.
Parhelion on the 16th.
Lunar halo on the 13th, 15th, and 16th.
Lunar corona on the 13th and 16th.
Paraselene on the 15th.
Vertical lunar bar on the 15th.
Lightning and thunder on the 15th, $10\frac{3}{4}^h$ a.m.
Thunder on the 15th, 10^h a.m. and $1\frac{1}{2}^h$ p.m.

OCTOBER.

Temperature.

Highest, air, on the 1st at $1^h\ 20^m$ p.m.	65·1
Lowest, air, on the 25th at $3^h\ 45^m$ a.m.	32·4
Highest, sun, on the 6th	121·3
Lowest, grass, on the 25th	29·3

Rain on the 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 11th, 12th, 13th, 15th, 17th, 20th, 21st, 22nd, 26th, 27th, 28th, 29th, 30th, and 31st.
Hail on the 2nd.
Fog on the 3rd, 4th, 11th, 12th, 13th, 17th, 24th, 25th, and 26th.
Solar halo on the 5th, 13th, 14th, 23rd, and 31st.
Lunar halo on the 10th and 13th.
Lunar corona on the 10th and 13th.
Thunderstorm on the 2nd, $1^h\ 40^m$ p.m.–2^h p.m., and $3\frac{1}{2}^h$–7^h p.m.
Lightning and thunder on the 3rd, $1\frac{1}{2}^h$ a.m.; and 28th, $6^h\ 20^m$ p.m.
Lightning on the 27th, after 6^h p.m.; and 30th, $6\frac{1}{2}^h$ p.m.
Thunder on the 2nd, $0\frac{1}{2}^h$ p.m.–$1\frac{1}{2}^h$ p.m.

NOVEMBER.

Temperature.

Highest, air, on the 2nd at $0^h\ 50^m$ p.m.	58·2
Lowest, air, on the 23rd at $3^h\ 25^m$ a.m.	26·8
Highest, sun, on the 1st	108·0
Lowest, grass, on the 23rd	21·4

Rain on the 2nd, 4th, 5th, 6th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 18th, 20th, 21st, and 23rd.
Fog on the 4th, 22nd, 23rd, 25th, and 28th.
Solar halo on the 2nd, 5th, 11th, 16th, 18th, 20th, 26th, and 27th.
Parhelia on the 16th and 26th.
Lunar halo on the 7th, 8th, 9th, 11th, 12th, 14th, 15th, and 16th.
Lunar corona on the 7th, 8th, 11th, 12th, 14th, 15th, and 16th.
Lightning on the 6th, evening; and 11th, 5^h p.m.

DECEMBER.

Temperature.

Highest, air, on the 3rd at $0^h\ 15^m$ p.m.	53·3
Lowest, air, on the 31st at $8^h\ 50^m$ a.m.	25·8
Highest, sun, on the 5th	90·7
Lowest, grass, on the 31st	17·5

Rain on the 1st, 2nd, 3rd, 4th, 5th, 6th, 8th, 17th, 18th, 19th, 23rd, 24th, and 27th.
Snow on the 28th, 29th, 30th, and 31st.
Hail on the 28th and 31st.
Sleet on the 4th.
Fog on the 19th and 23rd.
Gale on the 3rd, and 26th, 9^h p.m.–27th, 1^h a.m.
Solar halo on the 17th (with contact arch), and 27th.
Lunar halo on the 3rd, 9th, 10th, 12th, 13th, and 14th.
Lunar corona on the 10th, 12th, 13th, and 14th.

Recorded at the Radcliffe Observatory by the Anemograph, at an elevation of 114 *feet above the Ground.*

Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.
Jan. 1	SW	324	Feb. 1	SW	241	Mar. 1	SSE	316	Apr. 1	WSW	257
2	S	217	2	WSW	498	2	SSW	471	2	S	327
3	SSE	350	3	WSW	716	3	SW	650	3	E	407
4	S	489	4	SW	463	4	SSW	607	4	NNE	663
5	SSW	445	5	SSW	402	5	SW	585	5	NE	732
6	S	266	6	SSW	411	6	SSW	614	6	NNE	638
7	S	414	7	SSW	649	7	WSW	390	7	NNE	553
8	SE	349	8	SW	494	8	WNW	320	8	NNE	263
9	SE	366	9	SSW	435	9	SW	482	9	NNE	245
10	ESE	296	10	S	191	10	WSW	457	10	NW	321
11	ESE	413	11	Nearly Calm	49	11	WSW	400	11	Var.†	279
12	WSW	354	12	Nearly Calm	53	12	Var.†	157	12	NNE	308
13	Var.†	103	13	SW	124	13	SW	243	13	Var.†	112
14	SE	203	14	NNW	110	14	SW	667	14	SSW	370
15	SSE	380	15	Var.†	106	15	WSW	707	15	SSW	503
16	Var.†	288	16	NE	257	16	SW	561	16	SW	601
17	Var.†	203	17	NNE	387	17	W	466	17	WSW	287
18	SW	208	18	NE	540	18	Var.†	257	18	SW	471
19	S	335	19	NE	463	19	SW	839	19	WSW	568
20	S	404	20	NE	436	20	SW	598	20	SW	284
21	NW	348	21	NE	284	21	SSW	545	21	SE	277
22	Var.†	195	22	ESE	140	22	S	496	22	NE	176
23	WSW	617	23	SE	291	23	WSW	451	23	ENE	187
24	SW	488	24	SSE	309	24	Var.†	154	24	S	234
25	NW	275	25	SSE	311	25	E	200	25	SSW	431
26	ENE	171	26	SSE	145	26	ENE	260	26	S	662
27	SE	194	27	NW	286	27	Var.†	171	27	S	645
28	ESE	198	28	NNE	179	28	SSE	380	28	S	403
29	E	79				29	ESE	366	29	SE	239
30	S	360				30	SSW	411	30	SW	259
31	WSW	574				31	SW	108			
Sum ...		9906	Sum ...		8970	Sum ...		13329	Sum ...		11702

† **Jan. 13.** WSW till 3^h a.m.; nearly calm till noon; NE after. **Jan. 16.** S till $11\frac{1}{2}^h$ a.m.; then slowly backing to NE by $9\frac{1}{2}^h$ p.m.; NE after. **Jan. 17.** Slowly backing from NE to S by $4\frac{1}{2}^h$ p.m.; S after. **Jan. 22.** NW till 11^h a.m.; then suddenly backing to SSE; SSE after. **Feb. 15.** NNE till 4^h a.m.; veering to SW by $4\frac{1}{2}^h$ a.m.; SW till $4\frac{1}{2}^h$ p.m.; then suddenly backing to E; ENE after. **Mar. 12.** N till 8^h a.m.; veering to S by 11^h a.m.; S after. **Mar. 18.** Backing from N to S by 4^h p.m.; S after. **Mar. 24.** WSW till $3\frac{1}{2}^h$ a.m.; veering to NE by 11^h a.m.; NE after. **Mar. 27.** NNE till 8^h a.m.; then gradually backing to ESE by midnight. **Apr. 11.** ENE till 7^h a.m.; veering to SSE by $8\frac{1}{2}^h$ a.m.; SSE till $5\frac{1}{2}^h$ p.m.; veering to NW by $7\frac{1}{2}^h$ p.m.; NW after. **April 13.** Nearly calm till $3\frac{1}{2}^h$ p.m.; S after.

Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.
May 1	Var.†	128	June 1	Var.†	122	July 1	NE	130	Aug. 1	NE	272
2	W	140	2	SSW	292	2	NNE	197	2	NE	89
3	S	296	3	S	206	3	N	216	3	NE	89
4	NNW	314	4	SSE	209	4	NNW	206	4	NNE	300
5	Var.†	234	5	S	315	5	NW	107	5	NNE	159
6	SSW	242	6	SW	359	6	NNW	135	6	N	201
7	S	319	7	SW	553	7	N	171	7	S	111
8	SE	399	8	SW	417	8	WNW	197	8	Var.‡	126
9	SSE	239	9	SW	459	9	SSW	167	9	W	176
10	S	303	10	WSW	655	10	Var.†	102	10	WSW	216
11	S	193	11	WSW	416	11	NW	149	11	SW	259
12	ESE	311	12	WSW	213	12	SW	197	12	Var.†	147
13	NE	282	13	Var.†	163	13	SSW	186	13	W	258
14	NNE	382	14	ESE	168	14	W	156	14	WNW	154
15	NNE	593	15	ENE	202	15	NNW	218	15	Nearly Calm	68
16	NNE	364	16	NE	122	16	W	171	16	Nearly Calm	34
17	Var.†	189	17	SW	124	17	SW	273	17	NNE	189
18	WNW	374	18	WSW	245	18	WNW	270	18	NNE	314
19	W	268	19	WSW	355	19	WNW	176	19	NNE	153
20	SW	334	20	Var.†	129	20	NW	291	20	WNW	99
21	SSW	475	21	Var.†	98	21	W	183	21	WSW	312
22	WSW	349	22	WSW	153	22	N	227	22	SSW	520
23	SW	380	23	SSW	302	23	NNW	393	23	WSW	362
24	WSW	190	24	WSW	349	24	NNE	263	24	WSW	290
25	SSW	176	25	NW	332	25	NNE	288	25	Var.†	87
26	S	100	26	W	232	26	NE	249	26	E	97
27	NW	148	27	NW	363	27	NE	169	27	NNE	253
28	SSW	301	28	W	330	28	NE	118	28	NE	226
29	SSE	190	29	NW	326	29	SE	118	29	NNE	134
30	S	401	30	ENE	112	30	ENE	245	30	NNW	135
31	SSW	339				31	NE	358	31	N	189
Sum ...		8953	Sum ...		8321	Sum ...		6326	Sum ...		6019

† **May 1.** WSW till 2^h p.m.; backing to SE by $2\frac{1}{2}^h$ p.m.; then veering through 495° to W by 5^h p.m.; SW after. **May 5.** N till 2^h p.m.; then backing to SE by midnight. **May 17.** NNE till $8\frac{1}{2}^h$ a.m.; veering to NW by 1^h p.m.; NNW after. **June 1.** Nearly calm till $8\frac{1}{2}^h$ a.m.; NE till $5\frac{1}{2}^h$ p.m.; then veering to S by midnight. **June 13.** WSW till $2\frac{1}{2}^h$ p.m.; then suddenly backing to E; E after. **June 20.** WSW till 1^h p.m.; WNW till $6\frac{1}{2}^h$ p.m.; then veering to WSW by midnight. **June 21.** Light airs. **July 10.** Nearly calm till 2^h p.m.; NNW after. **Aug. 8.** NE till $0\frac{1}{2}^h$ p.m.; NW till 5^h p.m.; then veering through 405° to N by midnight. **Aug. 12.** Veering from W to NNE by 9^h a.m.; NNE till 9^h p.m.; then veering to W by midnight. **Aug. 25.** SW till noon; then light airs.

Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.
Sept. 1	NNW	174	Oct. 1	NE	350	Nov. 1	S	197	Dec. 1	W	323
2	N	286	2	NE	161	2	SSW	534	2	SW	319
3	NE	223	3	Calm	40	3	SW	353	3	SW	755
4	ENE	328	4	SE	125	4	SE	149	4	WSW	576
5	NE	281	5	SW	124	5	SW	253	5	W	359
6	NNE	402	6	ESE	138	6	SSW	199	6	ENE	132
7	NNE	357	7	ESE	281	7	WNW	225	7	Var.†	108
8	N	164	8	SSW	299	8	SSW	261	8	SSW	267
9	NW	163	9	NNW	126	9	ESE	128	9	WSW	475
10	NNW	131	10	E	284	10	SE	222	10	W	306
11	WSW	181	11	SE	208	11	SSE	296	11	WSW	204
12	SSW	269	12	SSW	77	12	SSW	484	12	WSW	433
13	SSE	284	13	SSE	174	13	W	468	13	W	232
14	S	435	14	S	324	14	WSW	466	14	WSW	303
15	SE	183	15	NW	230	15	WSW	473	15	SW	293
16	ENE	170	16	Var.†	85	16	WSW	472	16	W	476
17	NNE	129	17	S	132	17	WSW	580	17	NNW	349
18	NE	112	18	SSW	211	18	SW	540	18	NNE	226
19	S	149	19	SSE	309	19	SW	424	19	NNE	246
20	W	261	20	S	392	20	SSW	645	20	NE	233
21	NW	107	21	SSW	184	21	Var.†	486	21	NNW	129
22	SW	87	22	SSE	142	22	NW	124	22	Var.†	102
23	SSE	277	23	NNE	123	23	SE	123	23	WSW	76
24	SE	320	24	Calm	26	24	SSW	245	24	W	254
25	SE	233	25	ENE	90	25	SW	206	25	WSW	341
26	SE	150	26	Var.†	153	26	W	281	26	SW	721
27	SE	217	27	SSE	336	27	WSW	264	27	WSW	519
28	ESE	175	28	SE	359	28	W	216	28	W	259
29	NNE	175	29	SSE	436	29	WSW	373	29	NNW	384
30	NE	271	30	S	420	30	WSW	479	30	N	311
			31	SSW	280				31	N	178
Sum ...		6694	Sum ...		6619	Sum ...		10166	Sum ...		9889

† Oct. 16. NNW till 4^h a.m.; then nearly calm till 6^h p.m.; S after. Oct. 26. Light airs till 1^h p.m.; SW after. Nov. 21. SSW till 0½^h p.m.; then veering to N by 5½^h p.m.; NNW after. Dec. 7. NNE till 9½^h a.m.; veering to S by 11½^h a.m.; S after. Dec. 22. WSW till 1½^h p.m.; veering to S by 4½^h p.m.; S after.

METEOROLOGICAL OBSERVATIONS

MADE AT THE

RADCLIFFE OBSERVATORY, OXFORD,

1914.

JANUARY, 1914.

Day.	Mean Barom. reduced to 32° F.	Mean Tempera. ture.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sun-shine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direc-tion.	Hori-zontal Motion.	Esti-mated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	30·341	29·9	28·6	37·0	23·5	67·3	18·6	W	123	0·7	5·7	5·65	...	1
2	30·239	40·0	38·1	43·8	32·0	72·4	23·7	W	187	2·0	10·0	0·50	...	2
3	30·222	36·4	35·6	44·4	32·9	45·9	24·8	W	282	1·3	3·7	0·00	0·007	3
4	29·866	46·0	44·2	49·3	34·5	65·1	27·0	WSW	496	5·0	7·0	0·15	0·005	4
5	29·449	39·5	38·1	47·7	35·7	79·6	30·4	WSW	373	2·3	7·0	0·40	0·249	5
6	29·503	35·7	33·6	39·7	33·6	79·8	29·3	WNW	277	4·3	1·3	4·90	...	6
7	30·002	34·1	32·3	40·0	28·7	79·3	20·7	WSW	225	1·0	3·3	5·30	...	7
8	29·854	45·7	44·6	51·6	37·1	54·6	33·0	SSW	443	3·3	8·3	0·00	0·011	8
9	29·834	51·7	50·5	54·4	50·1	63·8	45·2	WSW	292	2·7	10·0	0·00	0·040	9
10	29·846	51·4	50·4	52·6	50·1	58·3	47·1	WSW	302	1·7	10·0	0·00	0·083	10
11	30·081	32·4	30·7	51·0	30·1	64·1	26·7	NE	299	4·0	8·7	2·25	...	11
12	30·310	30·1	27·2	33·5	27·8	74·0	24·0	NE	267	2·7	3·3	3·55	...	12
13	30·285	34·3	32·3	36·3	27·8	45·1	24·0	NE	341	3·0	10·0	0·00	...	13
14	30·080	34·5	31·8	37·4	31·7	85·8	27·8	NE	260	4·0	8·3	4·80	...	14
15	30·054	36·5	35·5	40·0	28·5	47·3	22·6	NNE	190	1·3	10·0	0·00	0·037	15
16	29·847	36·8	35·7	39·6	35·0	52·9	32·0	NE	120	1·0	10·0	0·05	0·003	16
17	29·620	36·6	35·7	39·2	35·1	47·2	32·3	NNE	117	1·0	9·7	0·00	...	17
18	29·835	34·3	32·4	37·9	32·2	60·7	26·4	NE	153	1·3	9·7	0·10	...	18
19	29·785	32·3	30·6	34·7	30·8	35·6	26·0	ENE	227	1·3	10·0	0·00	...	19
20	29·806	32·0	29·4	33·2	30·8	50·0	28·3	ENE	178	2·3	10·0	0·10	...	20
21	29·893	32·9	31·1	35·2	31·5	49·1	27·4	ENE	147	1·0	10·0	0·05	...	21
22	29·934	33·9	31·2	36·0	32·7	44·2	30·7	ESE	131	1·3	10·0	0·00	...	22
23	29·965	28·4	27·3	36·6	25·1	73·7	17·0	ENE	89	0·7	3·0	5·35	...	23
24	30·023	31·1	30·1	40·1	21·3	70·0	15·3	S	265	1·3	2·7	4·50	0·005	24
25	29·966	42·7	41·0	44·5	36·0	51·2	29·8	SSW	379	3·7	10·0	0·00	...	25
26	29·888	39·3	38·3	46·4	36·1	80·0	30·3	WSW	238	1·0	6·3	0·90	0·046	26
27	29·912	37·1	36·1	41·5	31·7	80·1	24·7	WSW	161	1·3	6·7	2·45	0·048	27
28	29·915	43·9	42·6	49·4	39·7	87·2	32·0	WSW	342	1·3	6·0	3·15	...	28
29	29·747	47·1	44·8	49·6	44·7	75·7	41·3	SW	406	3·7	8·7	0·55	0·003	29
30	29·721	50·1	48·2	53·9	46·9	80·7	44·7	SW	486	4·0	9·7	0·15	0·010	30
31	29·691	48·9	46·7	51·9	46·3	59·4	42·7	SSW	614	5·7	10·0	0·00	...	31
Mean or Sum.	29·920	38·25	36·60	42·85	34·19	63·87	29·22	...	8410	2·30	7·71	44·85	0·547	Mean or Sum.

Weather.

1. Fine till evening. 2. Generally overcast. 3. Very fine till 8h a.m. and after 7h p.m. 4. Generally overcast till evening. 5. Overcast, fine night; rain 5h–9½h a.m. 6. Very fine generally. 7. Very fine generally till evening. 8. Overcast after 10h a.m. 9. Overcast. 10. Light rain till 1h p.m. 11. Fair. 12. Very fine at intervals. 13. Overcast. 14. Very fine generally, 10h a.m.–7h p.m. 15. Frequent light rain till afternoon. 16. Overcast. 17. Overcast. 18. Overcast. 19. Gloomy. 20. Overcast. 21. Overcast. 22. Overcast. 23. Very fine after 9½h a.m. 24. Fine to very fine. 25. Gloomy. 26. Rain early, fine after noon. 27. Fine till 11h a.m.; light rain after 4h p.m. 28. Fair till 2h p.m., then overcast. 29. Generally overcast. 30. Overcast. 31. Overcast, squally.

FEBRUARY, 1914.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·840	50·6	48·4	53·7	48·7	89·7	45·1	SSW	408	5·0	8·0	2·05	0·006	1
2	29·865	46·1	42·7	54·7	42·4	93·0	37·1	SSE	183	2·3	4·3	6·55	...	2
3	29·848	45·7	43·8	55·4	41·4	80·2	31·7	SE	211	1·0	6·0	1·00	...	3
4	29·862	46·5	44·3	51·9	39·8	98·5	30·8	S	245	2·3	4·7	5·10	...	4
5	29·840	44·9	42·1	55·4	39·7	96·3	31·4	SSE	246	1·3	0·3	7·80	...	5
6	29·612	44·7	42·8	50·1	39·2	94·0	33·0	SSE	346	2·7	5·0	4·50	0·093	6
7	29·391	46·6	44·1	48·9	43·1	88·4	40·5	S	563	5·0	10·0	1·95	0·042	7
8	29·297	47·6	45·9	49·8	46·1	57·2	43·7	SSW	166	3·7	10·0	0·00	0·169	8
9	29·542	45·4	44·2	51·6	38·8	73·1	30·7	SSE	188	1·0	10·0	0·10	0·001	9
10	29·606	49·0	46·4	56·0	45·0	101·1	40·4	S	433	2·0	3·7	5·45	0·006	10
11	29·333	46·2	45·1	47·6	44·5	54·6	41·1	S	394	4·0	10·0	0·00	0·186	11
12	29·279	45·8	42·4	50·5	40·6	95·7	35·5	SSW	485	5·3	4·3	3·90	0·029	12
13	29·615	44·6	42·3	50·0	37·8	96·7	32·4	SSW	569	3·7	8·0	2·25	0·293	13
14	29·576	53·2	49·5	57·0	47·8	104·3	46·2	SW	698	5·7	6·7	3·20	0·073	14
15	29·497	49·5	45·5	54·5	43·6	81·3	38·0	SW	333	4·7	7·0	0·05	0·067	15
16	29·750	42·3	40·3	46·4	40·1	60·6	33·0	WSW	113	1·0	9·7	0·00	...	16
17	29·771	40·4	37·8	47·9	32·0	95·4	25·5	SW	429	3·0	5·3	5·55	0·015	17
18	29·275	39·8	37·3	46·5	35·5	101·0	29·4	WSW	278	1·7	6·3	2·00	0·213	18
19	29·209	42·4	41·0	47·1	33·3	66·7	27·4	SW	185	2·0	9·3	0·05	0·031	19
20	29·240	43·1	42·0	49·4	36·0	90·0	27·2	S	459	2·3	10·0	0·70	0·178	20
21	28·944	40·2	38·4	50·0	36·1	79·0	32·4	SSE	338	2·0	5·3	1·30	0·246	21
22	28·421	43·0	40·8	48·0	36·5	88·2	31·8	S	321	3·3	4·3	2·75	0·282	22
23	28·850	41·5	39·6	49·0	35·9	100·6	31·4	SSW	191	2·3	8·7	2·55	0·052	23
24	29·200	40·7	39·6	49·8	38·3	99·6	29·4	Calm	87	0·3	6·7	1·75	0·004	24
25	29·605	36·5	35·8	46·5	30·0	75·7	23·4	WNW	149	0·7	5·3	2·30	0·007	25
26	29·713	40·9	39·0	49·0	34·4	95·4	24·9	SW	95	1·0	6·3	3·30	...	26
27	29·960	38·3	36·6	53·7	26·9	103·7	21·2	SSE	191	0·7	0·0	6·00	...	27
28	29·892	44·8	42·9	49·7	36·4	84·0	26·1	S	301	1·3	10·0	0·30	0·026	28
Mean or Sum.	29·494	44·30	42·16	50·72	38·92	87·29	32·88	...	8605	2·55	6·61	72·45	2·019	Mean or Sum.

Weather.

1. Overcast to fine. 2. Very fine generally. 3. Cloudy to fine. 4. Fine after 9½ʰ a.m. 5. Very fine. 6. Fine till 1ʰ p.m.; rain evening. 7. Fine 9ʰ–11ʰ a.m., otherwise overcast; rain afternoon. 8. Frequent light rain till 2ʰ p.m. 9. Overcast generally. 10. Very fine 9ʰ a.m.–3ʰ p.m. 11. Occasional rain or drizzle. 12. Fine till afternoon. 13. Fine till 11ʰ a.m., rain after 2ʰ p.m. 14. Fine morning, rainy after 3ʰ p.m. 15. Overcast; showers morning. 16. Overcast. 17. Fine till afternoon. 18. Overcast to fine; rain early. 19. Fine early; light rain after noon. 20. Cloudy to overcast. 21. Very fine till 9ʰ a.m.; rain afternoon. 22. Fine intervals; rain early. 23. Cloudy; slight rain after 4ʰ p.m. 24. Overcast to fine. 25. Fog morning, then fine. 26. Cloudy to fine. 27. Fog morning, then very fine. 28. Slight rain after 3ʰ p.m.

MARCH, 1914.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·786	44·6	41·6	52·1	42·1	104·0	36·3	WSW	268	2·0	3·0	7·60	0·037	1
2	29·824	38·5	35·9	46·9	31·0	101·1	23·9	W	295	1·7	2·0	6·40	0·004	2
3	29·722	42·8	40·1	47·1	35·8	80·0	27·6	WSW	416	3·0	10·0	0·05	...	3
4	29·474	48·7	47·6	53·1	42·6	93·7	39·2	WSW	449	4·0	10·0	0·40	0·060	4
5	29·375	49·0	47·4	51·1	47·0	78·1	42·9	WSW	619	4·3	10·0	0·20	0·063	5
6	29·208	49·6	45·1	56·7	45·9	111·8	42·1	W	335	5·7	5·7	6·40	...	6
7	29·376	41·7	40·9	46·5	38·1	65·4	30·3	SSW	250	0·7	10·0	0·05	0·152	7
8	29·198	50·0	49·2	52·3	44·1	63·7	41·1	SW	218	4·0	10·0	0·00	0·493	8
9	29·236	37·7	37·1	50·4	35·1	48·8	33·4	Var.	218	1·3	10·0	0·00	0·627	9
10	29·482	36·2	33·7	44·9	31·9	102·7	27·0	W	176	1·7	4·3	5·90	0·019	10
11	29·749	37·0	33·8	46·9	28·9	104·7	22·7	WSW	326	1·0	5·0	8·35	0·060	11
12	29·515	49·6	47·0	56·7	39·4	110·2	36·5	WSW	252	3·3	7·0	3·70	0·405	12
13	29·680	48·9	47·5	54·8	41·8	98·5	33·8	SSW	509	3·0	10·0	0·25	0·187	13
14	29·205	47·3	44·2	50·7	43·3	103·9	41·1	WSW	502	4·3	4·7	3·00	0·501	14
15	29·509	46·4	43·9	51·0	42·7	104·4	37·4	WSW	549	2·0	4·3	2·25	0·064	15
16	29·291	42·2	38·7	49·4	40·1	72·0	35·8	W	377	6·3	6·7	1·75	0·080	16
17	29·609	41·5	38·2	47·9	34·4	95·4	25·7	WSW	398	2·3	7·7	3·30	0·006	17
18	29·043	39·2	36·4	47·3	36·1	110·6	31·8	WSW	245	2·7	5·3	6·25	0·162	18
19	28·911	38·6	36·8	44·7	33·5	97·1	28·5	S	185	1·3	7·3	1·35	0·046	19
20	28·613	34·8	33·9	39·7	32·9	58·7	26·0	NNW	286	2·7	8·7	0·20	0·507	20
21	28·984	38·8	36·5	47·4	32·8	96·7	24·3	WNW	209	2·7	5·3	2·30	0·068	21
22	29·175	41·3	38·4	49·3	31·0	115·9	22·0	WSW	196	1·3	4·0	7·40	0·009	22
23	29·257	42·2	40·0	48·0	34·0	87·1	25·8	SSW	231	2·3	7·7	0·20	0·091	23
24	28·975	41·2	40·0	48·5	37·4	100·6	29·3	SSW	193	1·7	9·7	2·00	0·125	24
25	28·867	40·3	38·1	49·8	31·9	111·1	29·0	SSE	127	1·0	7·0	4·75	0·044	25
26	29·048	43·0	40·8	51·0	39·7	108·9	37·8	WNW	99	1·0	9·3	1·10	0·062	26
27	29·618	40·7	39·1	48·7	36·1	104·9	28·9	Var.	107	1·0	7·3	2·60	0·029	27
28	29·806	44·5	41·2	52·8	29·7	101·2	23·0	SE	254	1·7	7·3	4·35	...	28
29	29·722	44·7	42·7	47·8	43·4	68·9	40·4	SSE	273	1·7	10·0	0·00	0·069	29
30	29·814	51·1	49·6	55·7	43·0	102·3	39·0	SSW	548	3·3	9·3	0·65	0·129	30
31	29·966	55·0	50·7	64·5	51·3	121·8	47·1	S	249	3·7	6·3	6·65	...	31
Mean or Sum.	29·388	43·45	41·16	50·12	37·97	94·33	32·57	...	9359	2·54	7·25	89·40	4·099	Mean or Sum.

Weather.

1. Very fine till 3½ʰ p.m.; shower 5½ʰ p.m. 2. Fine. 3. Overcast. 4. Slight rain in morning. 5. Overcast; rain 3ʰ–5ʰ p.m. 6. Fine. 7. Rainy. 8. Frequent rain. 9. Frequent rain; sleet afternoon. 10. Fine; showers afternoon. 11. Very fine till afternoon. 12. Rain early; fine after 11ʰ a.m. 13. Rainy. 14. Fine early; frequent rain after 9ʰ a.m. 15. Fine till 10ʰ a.m., then showery. 16. Showery morning, then fair to very fine. 17. Fine to overcast. 18. Rain early, then fine. 19. Cloudy; showery afternoon. 20. Sleet or snow till 2ʰ p.m. 21. Rain and sleet in morning, then fair to fine. 22. Fine. 23. Rain afternoon. 24. Cloudy; rainy after noon. 25. Fine till 11ʰ a.m.; slight rain after 3ʰ p.m. 26. Generally overcast; rain evening. 27. Slight rain till 4ʰ p.m., fine after 5ʰ p.m. 28. Fine till afternoon. 29. Light rain till afternoon. 30. Rain 7ʰ–8½ʰ a.m. and after 3ʰ p.m. 31. Fine.

APRIL, 1914.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·727	54·0	49·7	63·4	39·0	119·4	31·4	SSW	179	2·0	6·3	7·55	...	1
2	29·681	48·5	47·0	56·2	48·4	93·4	40·0	WSW	186	1·3	6·7	2·10	0·027	2
3	29·754	48·3	45·2	56·9	38·9	107·3	34·1	SW	183	1·3	4·7	5·45	...	3
4	29·684	46·4	44·0	52·4	44·7	98·1	36·0	SW	348	1·7	6·3	0·95	0·125	4
5	29·376	49·6	47·4	54·8	42·7	108·3	36·2	SW	529	4·0	9·7	1·40	0·493	5
6	29·321	48·5	44·2	55·0	44·1	117·9	38·8	WSW	527	5·0	2·7	10·35	0·013	6
7	29·156	43·2	40·3	49·8	41·0	110·0	35·6	WSW	302	4·0	3·7	5·30	0·101	7
8	29·330	45·3	41·3	54·9	35·0	116·9	29·3	WSW	310	3·0	3·0	8·75	0·086	8
9	29·396	47·3	45·3	53·5	37·3	89·2	28·1	S	489	4·3	9·0	1·75	0·264	9
10	29·501	49·6	45·3	57·3	44·2	115·2	40·1	SSW	310	4·0	3·7	8·50	...	10
11	29·607	48·3	46·2	55·5	44·3	119·7	41·0	SW	226	2·7	6·0	3·25	0·050	11
12	29·921	48·8	44·4	59·4	40·5	118·8	34·9	WSW	249	1·7	4·3	9·65	...	12
13	29·837	49·2	44·7	58·6	36·9	109·1	31·9	SSW	220	1·7	6·0	2·65	...	13
14	30·146	47·3	41·7	55·6	38·3	118·3	30·2	NW	168	2·7	2·3	10·60	...	14
15	30·298	47·5	42·6	58·4	33·3	122·9	26·5	NNE	97	1·0	1·7	12·00	...	15
16	30·227	49·1	43·3	60·6	33·0	117·9	26·9	ENE	236	1·7	0·0	12·20	...	16
17	29·977	51·3	46·0	60·8	37·6	117·9	30·0	E	267	2·3	0·0	12·10	...	17
18	29·938	52·5	44·4	61·3	39·8	115·0	31·5	E	188	1·7	0·0	12·75	...	18
19	30·003	54·8	46·9	67·1	36·0	122·4	31·0	ENE	148	1·3	0·0	12·90	...	19
20	30·072	57·6	50·0	72·2	38·9	125·9	29·6	ENE	83	1·0	0·0	12·90	...	20
21	30·087	58·9	50·5	73·4	38·6	125·3	29·6	NE	89	0·7	0·0	12·80	...	21
22	29·965	57·4	51·3	70·0	45·6	113·4	37·2	SSW	289	1·3	3·7	7·50	...	22
23	30·077	49·5	44·7	59·5	47·1	121·6	41·2	NW	257	1·7	8·0	7·85	0·005	23
24	30·068	53·5	49·6	64·5	41·9	125·5	36·0	WSW	284	3·3	9·0	2·55	0·008	24
25	30·232	51·6	46·5	59·8	47·8	127·4	40·2	NE	112	1·7	5·7	9·30	...	25
26	30·311	50·0	45·6	61·6	34·6	117·6	28·3	Calm	92	0·3	0·0	12·45	...	26
27	30·225	55·4	50·1	66·6	40·8	114·9	32·8	NE	117	1·0	2·3	11·60	...	27
28	30·044	57·6	51·7	69·4	40·6	122·9	34·3	E	84	1·0	0·0	13·30	...	28
29	29·792	57·9	51·0	72·0	37·0	127·1	31·0	Calm	209	0·3	0·3	13·35	...	29
30	29·765	46·4	44·5	58·0	45·9	62·9	42·6	NE	271	2·7	8·7	0·00	...	30
Mean or Sum.	29·851	50·84	46·18	60·62	40·46	114·07	33·88	...	7049	2·08	3·79	243·80	1·172	Mean or Sum.

Weather.

1. Fine till afternoon. 2. Slight rain morning, fine after 4^h p.m. 3. Cloudy to fine. 4. Cloudy, fine evening; rain before 10^h a.m. 5. Occasional rain. 6. Fine; showers midday. 7. Very fine till 10^h a.m., then changeable; rain afternoon. 8. Cloudy afternoon with rain 2^h–4^h p.m., otherwise fine. 9. Cloudy; heavy rain 9½^h p.m. 10. Fair to fine. 11. Overcast to fine; showery morning. 12. Fine. 13. Fair. 14. Fine to very fine. 15. Very fine. 16. Very fine. 17. Very fine. 18. Very fine. 19. Very fine. 20. Very fine. 21. Very fine. 22. Cloudy to fine. 23. Cloudy to fine. 24. Cloudy. 25. Fine after 8^h a.m. 26. Very fine. 27. Fine. 28. Very fine. 29. Very fine. 30. Overcast.

MAY, 1914.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	30·049	43·1	38·7	49·5	36·9	110·8	31·8	NE	191	2·7	3·7	4·30	0·006	1
2	30·062	45·7	40·6	56·0	29·8	116·1	22·3	ESE	245	2·3	5·7	7·50	...	2
3	29·773	51·7	48·0	61·4	42·0	115·0	33·0	S	393	2·3	10·0	2·45	0·172	3
4	29·548	54·4	51·2	60·4	53·0	122·2	49·3	SW	418	3·7	9·0	1·60	0·072	4
5	29·382	52·7	48·6	59·4	48·9	126·6	45·0	SW	386	5·0	9·7	5·65	0·041	5
6	29·460	51·0	47·2	57·8	47·7	109·5	43·6	WSW	377	2·3	9·0	0·55	0·029	6
7	29·227	53·5	49·7	61·2	47·3	127·9	46·0	WSW	391	4·7	7·7	5·40	0·289	7
8	29·337	47·4	42·7	54·4	41·9	123·8	36·0	SW	464	5·3	7·0	10·60	0·135	8
9	29·699	44·6	40·7	47·8	44·5	70·5	41·7	NW	185	3·3	10·0	0·05	...	9
10	29·784	46·6	44·4	55·8	36·0	71·8	30·1	WSW	202	1·7	10·0	0·05	0·081	10
11	29·741	46·3	42·3	54·7	43·4	112·8	40·0	W	229	1·7	8·7	2·70	0·235	11
12	29·982	46·3	41·8	55·3	39·3	115·8	35·8	NNW	184	2·3	7·0	7·00	0·002	12
13	29·966	49·8	46·9	56·2	40·2	81·5	34·2	W	138	2·3	8·7	0·00	...	13
14	30·049	55·8	52·2	68·0	45·4	129·1	39·4	NNW	83	1·0	5·7	8·80	...	14
15	30·054	58·8	54·3	69·8	48·6	124·6	45·2	NE	146	1·0	2·0	9·00	...	15
16	30·130	53·8	48·9	65·9	42·5	126·2	37·6	ENE	167	1·7	3·3	9·05	...	16
17	30·154	54·4	48·2	67·6	41·0	125·2	35·0	NNE	108	1·3	3·0	10·55	...	17
18	30·126	62·2	52·6	74·5	41·1	126·6	34·8	N	128	1·0	1·0	13·55	...	18
19	30·161	63·2	57·0	74·1	45·6	130·0	39·0	N	106	2·0	4·7	12·10	...	19
20	30·122	63·8	57·2	75·0	52·0	130·8	44·8	WNW	119	0·7	3·3	10·85	...	20
21	30·049	60·6	55·4	70·5	48·4	127·0	42·4	WSW	152	1·7	0·0	14·20	...	21
22	29·892	61·8	56·9	75·7	46·3	126·5	43·0	Var.	94	1·0	2·0	10·85	...	22
23	29·673	52·7	51·6	67·6	49·6	82·3	49·3	WNW	244	2·0	10·0	0·00	0·183	23
24	29·962	48·6	44·5	57·4	44·8	125·8	44·1	NNE	205	2·3	7·0	7·00	0·043	24
25	30·057	46·6	41·7	54·2	42·1	125·4	39·4	NNE	171	1·7	5·3	5·75	...	25
26	29·971	48·1	40·7	57·7	32·3	127·0	25·7	NNE	176	3·0	2·3	13·70	...	26
27	29·980	51·9	45·4	61·0	31·9	119·3	26·5	N	74	1·3	8·0	9·95	...	27
28	29·935	53·6	48·5	61·1	37·2	121·9	32·0	W	101	1·0	7·3	4·45	0·103	28
29	29·830	54·3	50·8	61·9	49·0	110·8	46·9	W	80	1·3	10·0	0·30	...	29
30	29·850	55·7	52·8	59·8	51·8	84·8	51·1	WNW	98	1·0	10·0	0·00	...	30
31	29·834	55·2	49·9	64·1	45·6	126·4	39·9	NW	237	1·7	7·7	4·50	0·069	31
Mean or Sum.	29·866	52·72	48·11	61·80	43·42	115·29	38·87	...	6292	2·14	6·41	192·45	1·460	Mean or Sum.

Weather.

1. Fine early morning and in evening. 2. Fair to fine. 3. Fair to fine 3^h-6^h p.m., rain after 11^h p.m. 4. Cloudy to overcast. 5. Fine intervals; light showers. 6. Overcast; light showers. 7. Fine morning, rain afternoon. 8. Fine generally; showery afternoon. 9. Overcast. 10. Slight rain till early afternoon. 11. Fine intervals forenoon, rain after $4\frac{1}{2}^h$ p.m. 12. Cloudy to fine. 13. Overcast. 14. Cloudy to fine. 15. Fine. 16. Fine to very fine after 10^h a.m. 17. Very fine generally. 18. Very fine. 19. Very fine till evening. 20. Fine to very fine. 21. Very fine. 22. Very fine $7\frac{1}{2}^h$ a.m. till evening. 23. Slight rain at times. 24. Fine to cloudy; light rain evening. 25. Cloudy to fine. 26. Very fine generally. 27. Fine till 3^h p.m. 28. Very fine till 10^h a.m., rain after 4^h p.m. 29. Overcast. 30. Overcast. 31. Fine morning; rain 5^h-7^h p.m.

JUNE, 1914.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·908	54·1	47·3	62·4	42·0	126·0	38·9	NW	134	1·3	4·7	10·50	...	1
2	29·861	55·9	53·1	65·3	49·7	131·2	47·1	Var.	144	1·0	10·0	1·40	...	2
3	30·007	59·4	51·8	69·2	49·0	126·6	49·1	ENE	89	1·0	0·3	14·05	...	3
4	29·903	57·1	52·2	69·5	46·8	124·7	42·3	N	235	2·0	6·0	9·65	...	4
5	29·814	51·1	48·2	56·2	49·0	106·9	45·0	NNW	218	2·7	9·3	0·95	0·052	5
6	29·805	54·4	52·2	63·5	50·7	107·4	50·0	N	145	1·7	10·0	1·40	0·014	6
7	29·548	50·0	45·1	59·9	46·2	127·4	45·9	WNW	218	2·0	7·3	4·20	0·137	7
8	29·411	48·7	45·6	55·4	41·0	115·4	37·2	N	148	3·0	8·0	5·50	0·108	8
9	29·398	51·2	49·2	62·3	45·1	121·4	44·8	NE	199	0·7	9·7	2·45	0·765	9
10	29·620	56·7	50·1	64·9	47·1	127·3	46·0	ESE	288	2·7	4·3	11·10	0·350	10
11	29·729	56·8	51·0	68·4	47·0	125·8	42·9	NNE	238	3·7	4·3	9·20	0·470	11
12	29·740	55·7	54·6	64·6	50·9	97·2	50·5	N	202	1·0	7·0	1·00	0·002	12
13	29·745	63·2	58·1	74·8	56·4	133·6	50·4	NNE	319	3·7	6·0	10·15	...	13
14	29·764	62·9	57·9	73·6	50·0	132·8	45·3	NNE	310	2·7	4·0	10·40	...	14
15	29·852	61·3	54·9	73·8	50·0	131·0	49·0	NNE	263	2·7	1·0	13·90	...	15
16	29·876	54·9	52·1	64·1	49·3	110·0	46·6	NE	63	1·0	9·7	1·00	...	16
17	29·830	65·5	58·5	75·0	48·9	133·3	40·6	Var.	55	1·0	2·7	12·60	...	17
18	29·786	65·8	61·3	78·4	54·6	139·1	46·0	S	96	1·0	2·3	9·25	0·875	18
19	29·830	63·2	60·1	77·2	53·2	124·9	50·3	WNW	116	1·0	7·0	6·60	...	19
20	29·689	62·6	57·8	70·8	54·3	131·6	50·3	SSW	215	2·3	4·7	8·45	...	20
21	29·576	59·6	55·0	67·6	54·1	133·2	51·4	SSW	198	1·7	8·7	5·95	0·177	21
22	29·715	58·2	52·5	67·0	50·4	130·1	47·0	SW	291	2·7	4·7	8·25	0·096	22
23	29·769	57·0	51·3	63·2	52·1	126·4	47·7	W	188	2·3	6·0	7·85	...	23
24	29·996	60·4	54·9	72·3	44·0	130·8	39·7	WSW	216	2·0	6·3	10·35	...	24
25	30·069	62·1	56·4	72·1	54·4	133·1	50·6	WNW	151	2·0	5·3	9·80	0·003	25
26	30·118	60·7	53·7	73·4	45·9	131·6	39·1	E	128	1·3	5·7	10·65	...	26
27	30·043	66·7	58·1	76·1	53·0	135·1	45·2	W	126	1·3	1·7	13·60	...	27
28	30·087	66·4	57·8	77·4	52·9	134·2	47·2	NNW	135	1·0	2·0	13·30	...	28
29	30·047	68·6	62·2	81·0	53·9	148·6	52·9	WNW	86	1·0	5·7	9·40	...	29
30	29·852	74·8	63·9	84·5	57·6	138·8	52·3	SSW	129	1·0	0·0	15·10	...	30
Mean or Sum.	29·813	59·50	54·23	69·46	49·98	127·18	46·38	...	5343	1·82	5·48	248·00	3·049	Mean or Sum.

Weather.

1. Very fine to fair. 2. Generally overcast. 3. Very fine. 4. Very fine morning, then cloudy. 5. Slight rain after 3^h p.m. 6. Fine intervals afternoon. 7. Fine intervals, showery. 8. Fine till 9$\frac{1}{2}^h$ a.m., then showery. 9. Fine intervals midday; rain early and after 6^h p.m. 10. Rain early, then fine. 11. Very fine till afternoon, rain after 5^h p.m. 12. Overcast till evening. 13. Cloudy to very fine. 14. Fine. 15. Very fine. 16. Overcast to cloudy. 17. Fine to very fine. 18. Cloudy afternoon, otherwise fine; thunderstorm 4^h–5^h p.m., with heavy hail 4$\frac{1}{2}^h$ p.m. 19. Fair after 10$\frac{1}{2}^h$ a.m. 20. Very fine to cloudy. 21. Fine intervals, showers. 22. Fine till 4^h p.m., shower 10^h p.m. 23. Fair. 24. Fine. 25. Fine to very fine after 10^h a.m. 26. Cloudy to fine. 27. Fine. 28. Fine. 29. Fine to very fine after 10^h a.m. 30. Very fine.

JULY, 1914.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·618	71·0	65·0	86·6	59·7	135·7	53·0	NE	180	1·3	4·3	7·95	0·040	1
2	29·423	64·9	61·2	70·7	61·4	116·3	55·0	SSW	221	2·0	8·7	3·15	0·004	2
3	29·645	53·6	51·8	64·4	53·3	71·9	53·0	NW	166	2·3	9·7	0·05	0·967	3
4	29·812	60·3	53·8	69·5	44·8	134·0	38·8	SW	203	1·3	1·3	14·70	...	4
5	29·574	56·8	54·7	62·3	53·9	91·9	52·0	SSE	175	1·7	10·0	0·00	0·169	5
6	29·515	57·7	53·4	66·6	52·8	130·2	52·7	SW	267	2·0	5·7	6·00	0·046	6
7	29·730	58·3	54·2	66·3	50·9	129·2	47·9	SSW	169	2·3	5·0	8·95	0·234	7
8	29·757	60·3	58·5	70·4	52·3	129·5	47·6	SSW	189	1·3	7·0	6·10	0·142	8
9	29·950	62·7	57·4	73·5	52·2	134·6	45·4	WSW	60	1·0	4·0	9·85	...	9
10	29·939	68·4	61·4	77·6	51·8	134·0	48·0	ESE	149	0·7	0·3	13·50	...	10
11	29·840	71·2	65·1	81·7	56·0	139·0	53·1	E	88	1·3	4·3	11·50	...	11
12	29·818	64·1	63·2	74·5	60·0	106·0	55·4	Var.	118	0·7	10·0	1·40	0·294	12
13	29·869	65·6	61·3	74·4	57·0	136·5	54·9	WSW	176	1·3	7·7	6·20	...	13
14	29·750	66·6	60·1	74·8	59·9	128·9	55·4	S	192	2·3	7·7	5·00	0·026	14
15	29·663	61·0	56·9	69·3	56·9	133·5	54·8	WSW	217	1·7	5·7	5·20	0·084	15
16	29·745	60·5	55·6	67·2	51·5	123·0	48·4	W	167	2·0	8·0	3·95	...	16
17	29·793	61·7	57·7	70·9	53·0	132·5	47·4	SW	205	1·3	6·0	7·70	...	17
18	29·755	62·7	58·9	71·3	52·6	134·0	47·2	WSW	216	2·0	9·3	8·10	...	18
19	29·468	62·5	60·0	70·0	59·7	108·7	58·9	SE	204	1·7	10·0	0·20	0·563	19
20	29·368	64·8	61·0	72·0	60·1	127·4	59·0	SE	94	1·3	8·0	2·55	0·126	20
21	29·530	65·4	61·4	72·7	58·9	117·8	55·9	W	144	1·0	8·7	0·80	...	21
22	29·485	56·8	54·3	68·9	55·6	106·2	52·8	NNW	262	2·0	7·3	2·00	0·026	22
23	29·483	57·1	53·7	61·9	49·9	115·9	44·2	WSW	283	2·3	9·7	2·50	0·011	23
24	29·474	57·4	53·0	63·9	55·1	126·1	51·9	W	350	2·7	5·3	3·60	0·030	24
25	29·418	54·7	50·4	62·5	52·2	124·0	49·0	W	381	3·7	6·0	10·40	0·034	25
26	29·403	53·6	48·6	62·4	48·8	128·0	46·4	W	225	3·7	8·7	4·70	0·192	26
27	29·389	55·2	51·2	63·5	49·0	122·2	48·0	WNW	110	1·3	8·7	3·65	0·013	27
28	29·520	57·8	53·8	65·4	50·0	115·9	45·6	NNW	107	1·0	7·7	1·50	0·011	28
29	29·715	55·6	52·8	62·5	48·0	106·9	41·1	NNE	84	1·0	8·7	3·60	...	29
30	29·829	59·7	54·1	71·0	50·9	126·7	44·2	Var.	128	1·0	6·0	8·10	...	30
31	29·774	60·4	55·7	67·0	53·2	97·2	49·0	SSE	204	2·0	7·0	1·65	0·039	31
Mean or Sum.	29·647	60·92	56·78	69·54	53·92	121·41	50·19	...	5734	1·72	6·98	164·55	3·051	Mean or Sum.

Weather.

1. Fine till 5h p.m.; shower 10½h a.m. 2. Cloudy. 3. Rain 7h a.m.–3h p.m., heavy till 7½h a.m. 4. Very fine generally. 5. Occasional rain. 6. Cloudy to fine. 7. Showery 11½h a.m.–4h p.m., otherwise fine. 8. Rain till 2h p.m., then fine. 9. Fine generally. 10. Fine. 11. Fine. 12. Rain at times, fair intervals afternoon. 13. Very fair. 14. Fair, rain after 10½h p.m. 15. Fine to cloudy; shower 4h p.m. 16. Cloudy generally. 17. Fair to fine. 18. Fine at times. 19. Rain early and after 9h p.m. 20. Rain early, then cloudy to fair. 21. Cloudy. 22. Overcast to fair; light rain midday. 23. Overcast after 6½h a.m. 24. Fine intervals; showers. 25. Fine. 26. Fine intervals; rain 4h–5h p.m. 27. Fine 3h–6h p.m. 28. Cloudy; shower 3h p.m. 29. Fine early and after 5h p.m. 30. Fine 10h a.m.–7½h p.m. 31. Overcast after 8½h a.m., light rain after 6h p.m.

AUGUST, 1914.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·510	60·9	60·1	67·8	58·0	83·6	55·3	SSE	226	1·3	10·0	0·00	0·333	1
2	29·380	61·3	58·1	68·2	59·2	126·4	52·7	SW	347	3·0	5·7	7·75	0·113	2
3	29·527	60·5	55·6	68·4	53·0	130·6	49·0	SSW	165	2·7	6·7	5·90	0·068	3
4	29·491	59·5	55·1	69·7	50·0	136·0	43·7	SW	133	1·0	5·7	6·30	0·049	4
5	29·444	57·0	55·0	65·8	53·4	120·7	51·9	NNW	183	1·0	7·3	1·25	0·472	5
6	29·597	58·5	55·1	63·4	50·7	103·8	46·0	SW	246	2·7	8·7	2·05	0·018	6
7	29·724	58·4	53·9	65·1	49·6	125·2	43·0	WSW	228	1·3	6·7	5·65	...	7
8	29·759	59·0	57·9	64·5	49·9	84·2	44·0	S	466	3·0	10·0	0·00	0·189	8
9	29·793	63·6	60·9	68·1	62·1	120·2	59·4	SSW	299	5·0	9·3	2·25	...	9
10	29·946	60·7	56·1	70·6	58·2	128·9	55·0	WSW	140	1·0	6·0	6·60	0·048	10
11	30·101	61·8	56·0	74·0	48·8	133·4	43·2	Var.	94	0·7	1·0	13·55	...	11
12	30·059	66·4	58·1	77·0	49·6	128·8	44·4	E	122	1·0	0·3	13·35	...	12
13	29·949	67·6	61·0	81·4	51·0	130·6	47·1	ESE	144	1·0	2·7	10·80	...	13
14	29·786	68·3	61·2	81·1	53·1	131·7	48·8	E	144	1·3	3·7	10·25	...	14
15	29·705	59·0	57·5	67·9	56·8	76·0	51·6	E	179	0·7	9·7	0·00	0·108	15
16	29·763	62·2	57·4	72·4	53·4	130·7	50·1	NE	243	2·3	5·7	7·90	...	16
17	29·896	59·1	54·1	71·6	54·0	132·8	47·2	NE	77	1·3	3·7	6·20	...	17
18	29·931	58·8	54·3	69·4	45·6	115·5	39·6	NW	71	0·7	6·7	9·15	...	18
19	29·890	60·6	55·7	70·6	54·7	122·8	52·6	E	57	1·3	6·3	6·65	...	19
20	29·882	61·6	57·1	70·1	50·4	117·7	44·3	SSW	94	1·0	6·0	5·65	...	20
21	29·844	60·2	56·8	71·8	52·8	125·6	46·7	SW	115	1·0	6·0	7·60	0·018	21
22	29·846	60·5	57·3	71·5	50·4	128·9	46·9	SW	230	1·0	8·7	4·60	0·014	22
23	29·794	66·2	63·1	73·9	58·1	118·0	56·8	SSW	195	2·0	6·7	2·45	0·004	23
24	29·722	68·5	62·5	78·8	60·2	141·0	56·6	SSW	145	1·3	8·3	3·85	...	24
25	29·720	63·3	57·7	74·5	59·8	133·6	54·1	WSW	247	1·3	5·0	9·75	...	25
26	29·475	59·5	57·5	67·1	55·8	102·0	52·1	SSW	207	2·3	8·7	1·05	0·420	26
27	29·775	60·4	55·3	69·0	53·7	121·8	48·6	NW	135	2·3	5·3	7·40	...	27
28	30·052	61·5	56·6	74·0	49·6	125·8	43·0	W	80	0·7	0·7	12·00	...	28
29	30·091	63·9	59·6	76·7	49·8	127·8	44·9	WNW	103	0·7	1·0	11·75	...	29
30	30·033	64·9	61·4	76·5	56·9	134·0	54·2	W	88	0·7	6·3	6·45	0·004	30
31	30·089	63·8	61·0	70·1	58·4	93·4	52·0	NE	104	1·0	10·0	0·00	...	31
Mean or Sum.	29·793	61·85	57·71	71·32	53·77	120·37	49·19	...	5307	1·54	6·08	188·15	1·858	Mean or Sum.

Weather.

1. Rainy. 2. Occasional rain till afternoon, then fine. 3. Fine morning, rain afternoon. 4. Cloudy afternoon, with rain $3\frac{1}{2}^h$–5^h p.m., otherwise fine. 5. Cloudy; rain before 9^h a.m. 6. Overcast till evening; shower 5^h p.m. 7. Cloudy to fine. 8. Rain till afternoon. 9. Cloudy. 10. Overcast morning, then fine; rain 7^h–9^h a.m. 11. Very fine. 12. Very fine. 13. Very fine after 8^h a.m. 14. Very fine after 8^h a.m. 15. Overcast; rain 10^h a.m.–1^h p.m. 16. Fine after 9^h a.m. 17. Fine. 18. Fine till evening. 19. Fine after 10^h a.m. 20. Fine to fair. 21. Fine 10^h a.m.–7^h p.m.; rain 7^h–8^h p.m. 22. Fine 9^h a.m.–$2\frac{1}{2}^h$ p.m., rain 4^h–6^h p.m. 23. Overcast to cloudy till evening. 24. Fine intervals afternoon. 25. Fine. 26. Rainy till 3^h p.m., then fine intervals. 27. Cloudy to fine. 28. Very fine. 29. Very fine. 30. Fine after 11^h a.m. 31. Overcast.

SEPTEMBER, 1914.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Average Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	30·124	63·9	57·9	75·1	55·4	130·3	48·4	ESE	74	1·3	3·0	8·40	...	1
2	30·055	63·3	57·3	78·2	46·9	127·1	41·2	E	38	0·7	0·0	11·20	...	2
3	29·952	64·7	58·5	81·7	48·0	128·0	40·9	Nearly Calm	83	0·3	0·0	11·65	...	3
4	29·876	64·2	58·6	75·3	49·0	122·1	41·0	NE	265	2·0	3·0	9·45	...	4
5	29·925	58·8	53·6	65·2	56·2	107·8	46·3	ENE	139	2·3	6·7	0·90	...	5
6	29·946	59·8	53·4	75·1	45·4	125·3	39·2	ENE	106	1·3	2·3	9·35	...	6
7	29·805	65·7	60·1	79·2	48·0	127·6	42·1	ENE	137	1·0	3·3	7·95	...	7
8	29·625	67·3	61·7	76·8	58·2	133·6	51·0	SSE	92	1·3	6·3	8·00	...	8
9	29·612	64·0	59·6	76·4	52·9	134·0	45·6	SE	148	0·7	7·3	5·15	0·059	9
10	29·667	63·5	59·9	69·7	58·5	126·9	52·7	ESE	212	1·0	6·7	2·40	...	10
11	29·515	56·6	53·7	64·2	54·0	120·0	47·7	SW	319	2·3	7·0	3·15	0·274	11
12	29·532	54·7	50·8	59·7	47·4	115·0	41·8	Var.	283	2·0	8·3	2·50	0·240	12
13	29·595	55·2	50·1	62·1	47·2	125·4	41·3	W	345	2·7	6·7	7·80	...	13
14	29·363	60·7	57·2	67·8	53·2	114·8	51·5	SW	453	5·0	9·7	2·65	0·206	14
15	29·657	54·8	50·3	63·1	48·2	120·3	41·5	SW	228	2·3	3·7	7·10	0·012	15
16	29·695	55·9	52·5	62·5	48·9	99·0	43·2	SW	400	2·7	7·3	1·90	0·028	16
17	29·338	57·7	54·6	65·4	54·4	121·9	49·1	SW	434	4·3	10·0	4·65	0·043	17
18	29·596	55·1	49·3	60·8	52·0	120·1	46·5	WSW	270	3·3	6·3	5·45	...	18
19	29·709	51·6	46·8	58·1	47·1	116·1	43·1	WNW	280	2·3	3·0	6·55	...	19
20	29·847	48·3	44·2	57·4	44·0	111·0	38·9	NNW	231	2·3	3·0	8·20	0·012	20
21	30·098	49·6	44·5	58·1	40·0	111·4	32·3	NNW	74	1·3	6·0	8·15	...	21
22	30·138	49·4	45·6	61·4	43·5	114·4	35·8	Nearly Calm	63	0·3	1·7	8·60	...	22
23	30·154	51·2	47·1	64·7	32·9	115·1	27·0	S	96	1·0	2·0	8·30	...	23
24	30·114	51·0	47·2	66·4	36·5	115·6	31·1	S	76	1·0	3·3	7·10	...	24
25	30·010	52·2	47·1	68·7	36·7	115·0	29·4	SSE	96	0·7	0·0	9·00	0·001	25
26	30·019	54·6	50·4	68·1	37·4	120·9	30·8	Var.	142	1·0	4·7	7·65	...	26
27	30·139	54·8	50·8	64·4	44·2	119·4	35·9	NW	201	1·0	1·0	9·70	...	27
28	29·905	57·0	53·1	64·4	47·0	110·8	42·1	WNW	236	3·7	8·3	0·70	...	28
29	30·143	48·5	43·9	58·9	43·3	108·4	32·5	NNE	50	1·3	0·0	9·65	...	29
30	30·175	46·3	42·5	61·8	32·8	106·3	25·8	SW	126	0·7	0·0	8·60	...	30
Mean or Sum.	29·844	56·68	52·08	67·02	46·97	118·79	40·52	...	5697	1·77	4·35	201·85	0·875	Mean or Sum.

Weather.

1. Cloudy midday, otherwise fine. 2. Very fine. 3. Very fine. 4. Very fine till evening. 5. Overcast till evening. 6. Fine to very fine. 7. Fine till afternoon. 8. Fine after 9h a.m. 9. Fine 9h a.m. till afternoon, rain after 7h p.m. 10. Cloudy. 11. Rain 6h–10h a.m.; fine after noon. 12. Fine till 10h a.m., rain after 1½h p.m. 13. Fine till afternoon. 14. Rain early morning, then fine intervals. 15. Fine generally. 16. Cloudy, shower 10h a.m. 17. Fine afternoon; showers 8h–10h a.m. and 0½h p.m. 18. Fine morning. 19. Fine to cloudy. 20. Cloudy midday, otherwise fine. 21. Fine till evening. 22. Very fine generally. 23. Very fine to fine. 24. Fog till 10h a.m., then very fine. 25. Fog till 8h a.m., then very fine. 26. Fine till evening. 27. Very fine. 28. Overcast generally. 29. Very fine. 30. Very fine.

OCTOBER, 1914.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	30·005	52·7	48·8	64·8	40·8	111·3	32·9	W	159	1·0	1·7	9·65	...	1
2	30·058	55·1	53·1	60·4	46·4	77·7	36·8	WSW	145	1·0	10·0	0·95	...	2
3	30·031	58·4	55·3	66·1	52·7	116·2	49·0	WSW	188	1·7	7·3	2·40	...	3
4	30·147	51·7	48·1	60·9	46·0	113·6	35·9	WNW	180	1·7	6·7	5·60	...	4
5	30·130	51·7	48·7	60·8	42·1	101·8	32·7	W	158	1·3	9·0	0·85	...	5
6	30·059	54·9	51·6	58·9	50·4	97·6	44·1	N	115	1·3	9·7	0·75	...	6
7	30·106	49·9	46·0	58·1	45·0	103·3	36·2	Nearly Calm	36	0·3	8·7	1·25	...	7
8	30·085	48·3	44·8	62·5	36·1	106·9	27·0	SSW	78	0·7	4·0	8·60	...	8
9	30·012	55·3	50·7	63·3	48·0	116·4	45·4	WNW	153	1·0	9·0	2·95	...	9
10	29·954	51·5	49·0	59·5	47·4	98·7	39·8	N	110	1·0	5·7	2·30	...	10
11	29·870	54·0	49·3	63·3	47·4	115·1	38·9	SE	108	0·7	3·0	6·15	...	11
12	29·714	48·1	44·7	57·5	37·6	91·7	29·7	SE	102	1·0	5·7	3·10	...	12
13	29·503	49·3	46·6	55·3	41·3	82·5	33·1	N	159	1·0	10·0	0·00	0·007	13
14	29·664	49·7	48·7	53·1	48·0	66·6	46·0	N	197	1·7	10·0	0·10	0·930	14
15	29·851	54·0	53·2	59·3	50·3	84·3	49·0	NE	197	1·0	10·0	1·40	0·060	15
16	29·961	53·1	49·8	57·5	50·3	95·9	44·8	NNE	204	1·7	9·3	2·00	...	16
17	29·998	51·4	47·6	56·7	46·3	109·0	40·0	NNE	121	1·0	10·0	1·10	...	17
18	29·999	49·7	47·2	55·5	47·1	87·2	39·6	N	119	1·3	6·0	0·10	...	18
19	30·082	46·9	44·5	58·4	37·4	110·2	29·9	NNE	121	1·3	2·7	5·40	0·002	19
20	29·977	48·1	46·5	56·5	40·4	99·9	34·3	NNE	119	1·3	10·0	0·40	0·001	20
21	29·684	48·7	46·3	55·9	42·9	106·0	37·6	NE	155	1·0	9·0	1·90	...	21
22	29·415	51·4	50·2	56·3	45·7	101·0	38·7	SE	288	1·0	9·0	1·15	0·589	22
23	29·520	53·4	51·2	59·2	49·5	110·1	47·9	SW	132	1·7	8·0	3·95	0·002	23
24	29·592	53·6	53·1	58·5	50·1	73·9	46·3	ESE	72	1·0	10·0	0·00	0·620	24
25	29·594	55·9	55·2	59·0	52·8	69·4	51·9	S	313	2·0	10·0	0·00	0·313	25
26	29·679	51·5	47·7	59·2	48·0	112·9	39·2	W	210	1·7	2·3	7·25	...	26
27	29·502	49·1	46·2	56·2	44·3	106·0	37·5	W	130	1·7	2·0	7·70	0·053	27
28	29·336	43·4	41·3	53·1	34·0	106·6	27·1	SSW	152	0·7	5·3	5·20	0·004	28
29	29·275	46·7	44·4	53·4	36·4	101·0	29·0	NE	302	2·7	9·0	4·40	0·047	29
30	29·222	49·1	46·9	54·1	44·4	104·1	39·9	ENE	272	3·0	7·0	3·90	0·242	30
31	29·119	48·6	46·4	52·5	45·8	85·1	39·9	E	275	1·7	7·0	0·60	0·073	31
Mean or Sum.	29·779	51·14	48·49	58·25	45·00	98·77	38·71	...	5070	1·33	7·33	91·10	2·943	Mean or Sum.

Weather.

1. Very fine. 2. Overcast to cloudy. 3. Fine to cloudy. 4. Fine to cloudy. 5. Cloudy. 6. Cloudy. 7. Cloudy. 8. Very fine till 7^h p.m. 9. Fine to overcast. 10. Fine midday and in evening. 11. Fine. 12. Fine till $10\frac{1}{2}^h$ a.m. 13. Overcast. 14. Frequent rain, heavy in evening. 15. Rainy till 1^h p.m.; fine 2^h–4^h p.m. 16. Fine to cloudy. 17. Generally overcast. 18. Overcast till evening. 19. Fine till 1^h p.m. and after 7^h p.m. 20. Overcast. 21. Fine intervals forenoon. 22. Fair afternoon, otherwise rainy. 23. Fine till afternoon. 24. Frequent rain. 25. Rain after $2\frac{1}{2}^h$ p.m. 26. Fine. 27. Fine. 28. Fine generally. 29. Fine forenoon, shower 3^h p.m. 30. Fine morning, otherwise rainy. 31. Cloudy; rain early.

NOVEMBER, 1914.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·161	50·2	47·7	55·7	44·8	96·9	39·7	E	150	2·7	4·0	2·75	...	1
2	29·180	49·2	47·7	53·4	43·2	69·8	36·9	ESE	284	2·3	5·7	0·70	0·239	2
3	29·431	52·6	50·8	58·4	51·0	99·1	45·6	SSE	105	1·3	8·7	3·20	0·188	3
4	29·525	50·5	50·3	56·1	47·8	83·1	40·0	NE	205	0·7	10·0	0·90	0·213	4
5	29·390	53·8	52·4	57·2	51·0	91·1	48·9	SE	159	1·3	8·7	0·95	0·571	5
6	29·625	49·7	49·2	54·0	46·9	90·1	39·6	SSW	110	0·7	9·7	0·80	0·062	6
7	29·899	42·9	41·9	52·9	34·2	93·3	31·0	WSW	119	1·0	2·0	5·75	0·007	7
8	29·979	49·2	47·7	56·6	38·9	100·0	33·2	SW	228	1·7	7·7	2·80	0·008	8
9	29·971	53·5	50·3	58·8	50·5	112·5	47·8	SW	311	2·3	8·0	2·60	0·002	9
10	29·955	51·5	49·6	54·9	47·6	64·4	37·7	SW	298	1·3	9·3	0·15	0·005	10
11	29·631	49·6	47·3	54·7	46·6	58·2	41·0	SW	470	5·3	7·7	0·00	0·221	11
12	29·716	44·3	41·0	50·5	40·1	98·3	35·3	W	387	3·7	4·0	5·85	0·005	12
13	29·265	49·5	47·4	55·7	41·2	72·8	35·8	SW	364	5·0	7·7	0·45	0·050	13
14	29·466	37·8	34·4	44·6	32·9	87·5	25·4	WNW	250	2·3	1·7	6·80	0·005	14
15	28·902	46·5	43·9	52·6	32·6	95·2	24·1	S	304	3·0	7·3	2·60	0·131	15
16	29·512	41·6	38·9	47·9	38·1	88·7	31·5	NNE	185	3·0	4·3	4·65	0·016	16
17	30·129	35·9	34·5	46·2	30·8	77·8	22·3	N	114	1·3	0·0	6·20	0·005	17
18	30·350	34·3	32·7	47·4	27·8	84·6	20·0	N	97	1·0	0·0	6·00	0·005	18
19	30·025	34·0	33·5	41·6	26·2	40·9	20·7	Var.	203	1·0	9·7	0·00	0·076	19
20	30·075	33·9	32·1	40·4	28·7	75·4	21·0	E	163	1·3	2·3	4·95	...	20
21	29·819	33·0	31·9	38·1	27·7	48·4	22·2	NE	232	1·0	10·0	0·00	...	21
22	29·605	35·3	33·3	40·2	32·9	78·0	26·0	NE	326	3·7	8·7	3·20	...	22
23	29·635	35·2	33·4	39·7	32·8	46·2	25·0	NE	131	2·0	6·7	0·00	...	23
24	29·638	36·2	35·2	41·1	30·2	70·9	22·6	SW	227	1·3	8·0	1·00	0·097	24
25	29·614	40·8	39·5	45·7	35·5	81·8	28·0	SW	327	1·3	6·7	3·00	0·030	25
26	29·447	51·3	48·9	54·5	43·1	79·5	40·6	SSW	394	5·3	9·7	0·20	0·106	26
27	29·714	43·9	41·8	50·4	40·0	85·1	33·4	SW	393	2·7	4·7	1·90	0·011	27
28	29·549	48·6	47·2	52·8	41·2	57·9	32·0	SW	396	4·0	6·7	0·10	0·329	28
29	29·632	50·4	47·9	53·1	42·0	58·2	36·8	SSW	605	5·0	10·0	0·00	0·062	29
30	29·294	53·4	51·8	56·5	50·2	59·4	47·8	SSW	532	6·3	10·0	0·00	0·469	30
Mean or Sum.	29·638	44·62	42·81	50·39	39·22	78·17	33·06	...	8069	2·49	6·66	67·50	2·913	Mean or Sum.

Weather.

1. Cloudy to fine. 2. Fine till 10^h a.m., then rainy. 3. Rain till 10^h a.m., then fine to cloudy. 4. Fine intervals afternoon, rain after 7^h p.m. 5. Rain at times. 6. Overcast generally; rain forenoon. 7. Fine. 8. Fine to cloudy. 9. Fine intervals 9$\frac{1}{4}^h$ a.m.–1^h p.m. 10. Overcast. 11. Overcast till evening; rain afternoon. 12. Fine. 13. Rain till afternoon, then fair. 14. Very fine generally. 15. Fine 10^h a.m. till evening; sleet and rain early. 16. Cloudy to fine. 17. Very fine. 18. Very fine. 19. Slight rain 10$\frac{1}{3}^h$ a.m.–4^h p.m. 20. Fine to very fine. 21. Overcast. 22. Fine afternoon. 23. Overcast till evening. 24. Cloudy, slight rain evening. 25. Fine to cloudy; rain 7$\frac{1}{2}^h$–9^h p.m. 26. Rain after 4$\frac{1}{2}^h$ p.m. 27. Cloudy to fine generally. 28. Rain 10$\frac{1}{2}^h$ a.m.–3^h p.m., fine evening. 29. Overcast; rain after 10$\frac{1}{2}^h$ p.m. 30. Rainy.

DECEMBER, 1914.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·514	47·8	43·7	52·4	45·1	92·9	40·4	SSW	418	5·3	3·0	6·35	0·117	1
2	29·505	51·0	47·4	54·3	43·9	65·3	39·0	S	620	5·3	7·3	0·10	0·094	2
3	29·563	43·8	41·1	54·4	41·2	82·4	38·3	SSW	603	5·0	3·3	5·10	0·127	3
4	29·171	46·0	43·7	50·7	39·9	54·1	37·3	S	647	6·0	8·0	0·00	0·282	4
5	29·260	38·2	36·2	41·4	36·0	85·1	30·8	SW	317	5·0	3·3	2·50	0·097	5
6	29·364	39·9	38·7	49·1	33·0	48·1	24·4	S	430	1·0	7·0	0·00	0·208	6
7	29·122	48·9	46·4	55·8	46·9	60·6	43·0	SW	448	3·7	9·7	0·00	0·373	7
8	29·342	46·5	43·1	51·0	42·9	89·7	38·2	SSW	273	4·7	1·0	5·80	0·027	8
9	29·292	40·7	40·1	45·3	38·9	48·9	32·9	Calm	225	0·3	10·0	0·00	0·004	9
10	29·434	39·5	38·4	45·4	35·8	68·4	28·2	NNW	167	0·7	5·7	1·30	0·042	10
11	29·212	40·3	38·9	43·1	30·9	45·0	25·2	E	212	3·0	9·3	0·00	0·175	11
12	29·079	42·7	42·3	44·0	40·8	47·2	39·2	E	209	1·7	10·0	0·00	0·334	12
13	28·625	46·0	44·9	49·4	42·9	72·1	40·6	SE	211	1·7	9·7	0·55	0·408	13
14	28·627	44·0	43·0	48·1	42·7	83·5	35·3	SSW	90	1·0	9·7	2·20	0·160	14
15	28·951	39·8	39·0	43·8	39·0	59·2	34·0	W	243	1·3	10·0	0·85	0·078	15
16	29·631	41·2	38·6	45·8	36·0	83·4	29·4	W	277	2·0	4·7	2·80	...	16
17	29·803	45·9	43·4	48·4	35·4	72·3	28·3	SW	484	3·3	9·7	0·65	0·008	17
18	29·308	47·1	46·2	50·0	43·3	80·2	39·0	S	246	3·0	8·0	2·15	0·821	18
19	29·220	39·3	38·0	46·1	37·5	82·1	31·1	S	231	1·7	5·7	1·65	0·029	19
20	29·192	36·6	35·3	41·5	33·3	77·0	24·4	SSE	135	1·0	3·3	2·25	...	20
21	29·238	36·7	35·6	42·5	34·4	77·9	30·3	WSW	219	2·0	8·0	4·90	0·246	21
22	29·528	35·3	34·3	41·6	31·1	61·4	23·8	N	80	1·0	4·3	2·95	0·027	22
23	29·560	33·3	33·0	35·7	26·9	41·4	23·0	NNW	105	0·7	10·0	0·00	0·012	23
24	29·966	32·1	31·5	39·1	29·1	65·6	22·0	NNW	26	0·7	0·0	4·80	...	24
25	30·007	31·5	31·0	35·3	25·9	38·2	21·8	SSE	294	1·0	7·0	0·00	...	25
26	29·814	37·9	37·1	45·7	34·6	56·0	24·8	S	322	3·3	8·7	0·20	0·355	26
27	29·345	48·2	45·7	51·4	33·3	84·1	24·9	S	294	4·7	6·7	3·45	0·414	27
28	28·854	39·6	38·9	49·4	34·2	49·3	32·3	NW	336	2·7	9·7	0·00	0·879	28
29	29·526	36·4	35·0	41·8	33·2	83·4	29·4	WSW	246	2·3	5·0	3·70	0·076	29
30	29·537	40·5	38·9	46·7	31·7	47·8	23·0	SSE	446	3·7	8·7	0·00	0·022	30
31	29·216	40·1	39·1	46·6	36·8	77·2	28·4	SSW	268	0·7	7·0	1·55	0·403	31
Mean or Sum.	29·349	41·19	39·63	46·32	36·66	67·09	31·05	...	9122	2·56	6·89	55·80	5·818	Mean or Sum.

Weather.

1. Rain early, then very fine till 8h p.m. 2. Cloudy to overcast; rain night. 3. Fine generally. 4. Overcast and rainy till evening. 5. Rain early morning, fair to fine after 11½h a.m. 6. Rainy after 3h p.m. 7. Rain early and 2h–7h p.m. 8. Cloudy and showery early afternoon. 9. Overcast. 10. Cloudy to fine. 11. Gloomy; rain 1h–7h p.m. 12. Gloomy; rain early and in evening. 13. Fair afternoon, otherwise rainy. 14. Fine afternoon. 15. Fair afternoon. 16. Fine to very fine after 10h a.m. 17. Cloudy to overcast. 18. Rainy except between 1h and 9h p.m. 19. Fair after noon. 20. Fine generally. 21. Rain early, snow after 8½h p.m. 22. Fine to very fine after 11h a.m. 23. Overcast, misty. 24. Very fine, misty. 25. Gloomy till 3h p.m. 26. Rainy till 2h p.m., then fine. 27. Rain in morning and after 7h p.m. 28. Rain after 3h p.m., snow 8h–10h p.m. 29. Fine to very fine after 10h a.m. 30. Overcast after 10h a.m. 31. Rain till 11h a.m.

Indications of Schönbein's Ozonometer, observed at Noon and 8^h *p.m. of each day, during the Year* 1914.

Day.	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h	0^h	8^h
1	0	0	6	5	10	3	2	5	8	7	7	8	7	6	1	0	5	5	3	4	3	0	7	3
2	0	0	2	0	5	2	0	0	5	6	7	2	7	7	4	5	3	4	0	0	0	1	3	3
3	0	0	0	0	3	3	1	1	4	6	8	4	9	7	6	1	4	5	3	0	0	0	5	3
4	4	3	1	0	7	6	3	4	6	4	3	4	5	5	1	1	5	6	1	2	0	0	4	4
5	8	0	1	0	4	5	7	6	9	8	7	4	5	6	4	6	5	5	0	1	2	0	6	0
6	7	4	0	0	8	8	7	6	7	5	5	4	4	6	1	1	6	3	0	0	0	0	3	0
7	1	0	4	3	1	0	7	3	8	8	8	7	5	4	3	5	5	4	4	0	0	0	4	2
8	0	2	9	1	6	6	1	7	7	8	5	5	4	6	0	5	4	4	1	0	0	0	5	1
9	6	0	0	0	6	0	3	7	5	2	7	4	5	7	5	5	2	3	2	0	2	1	0	0
10	0	0	0	1	4	0	6	7	3	5	7	5	6	8	4	5	6	2	1	0	0	0	0	0
11	5	3	3	0	3	1	3	8	6	5	8	5	9	5	3	4	2	7	4	0	2	8	1	2
12	7	1	6	3	5	0	9	5	4	4	7	4	4	6	6	5	6	4	0	0	7	3	0	0
13	3	6	6	3	1	4	5	4	2	2	8	5	5	5	7	6	6	6	0	0	4	7	2	0
14	8	4	8	1	7	9	7	6	3	5	8	7	4	2	5	5	3	8	0	0	6	0	0	0
15	1	1	7	7	7	8	4	8	4	6	6	5	8	5	4	4	3	2	5	0	3	0	0	0
16	1	0	1	0	6	6	5	6	5	8	6	4	7	4	5	6	1	1	7	2	4	0	0	0
17	0	0	0	2	5	1	8	7	7	5	4	3	4	4	7	5	6	7	4	0	0	0	1	3
18	1	1	5	2	7	0	6	5	6	4	4	4	1	5	2	5	6	6	0	0	0	0	5	0
19	2	0	3	0	3	0	5	6	4	3	1	5	0	5	4	5	6	5	0	0	0	0	2	0
20	4	4	0	0	1	3	5	4	4	4	4	5	8	4	2	3	6	1	0	0	2	0	0	0
21	1	0	6	0	5	6	4	3	2	5	5	6	0	1	3	6	4	0	0	0	0	0	0	0
22	2	2	5	2	3	7	3	6	3	4	6	4	0	4	2	3	1	3	0	0	5	2	0	0
23	2	0	3	1	1	1	7	5	0	6	5	6	7	4	4	1	1	0	3	0	5	0	0	0
24	0	0	0	0	1	1	2	5	8	7	5	5	7	6	1	1	1	3	0	0	0	0	0	0
25	5	3	0	0	1	1	7	6	7	4	4	6	6	7	4	5	1	1	0	1	1	0	0	0
26	3	0	0	0	1	0	6	6	6	5	3	5	7	6	0	2	2	0	5	1	5	6	0	1
27	0	0	0	0	0	0	2	4	5	3	5	4	6	1	5	4	1	3	1	0	1	5	4	2
28	0	0	2	0	1	4	5	6	4	5	7	5	1	0	1	5	3	4	0	0	5	0	2	3
29	2	1	...	...	3	2	4	5	4	3	5	3	1	4	3	5	4	3	1	3	6	2	4	2
30	5	1	...	...	2	3	5	7	5	0	3	3	5	4	0	5	1	0	7	2	7	3	0	3
31	7	3	...	...	7	2	...	...	6	7	...	...	4	3	2	2	...	...	1	0	...	...	0	0
Means	2·7	1·3	2·8	1·1	4·0	3·0	4·6	5·3	5·1	5·0	5·6	4·7	4·9	4·7	3·2	3·9	3·6	3·5	1·7	0·5	2·3	1·3	1·9	1·0

SUMMARY OF THE WEATHER AND REMARKABLE PHENOMENA
1914.

JANUARY.

Temperature.

	°
Highest, air, on the 9th at 1h 25m p.m.	54·1
Lowest, air, on the 23rd at 11h 15m p.m.	21·3
Highest, sun, on the 28th	87·2
Lowest, grass, on the 24th	15·3

*Rain on the 3rd, 4th, 5th, 8th, 9th, 10th, 15th, 24th, 26th, 27th, and 30th.
Snow on the 6th, 12th, 14th, 18th, and 19th.
Hail on the 14th.
Sleet on the 16th and 17th.
Fog on the 17th, 23rd, 24th, 26th, and 28th.
Solar halo on the 5th (with contact arch), 24th, 26th, and 28th.
Parhelion on the 6th and 28th.
Lunar halo on the 5th, 7th, and 9th.
Lunar corona on the 3rd, 5th, and 7th.
Zodiacal light on the 24th and 26th.
Lightning on the 15th, 5h–6h p.m.

FEBRUARY.

Temperature.

	°
Highest, air, on the 14th at 2h 10m p.m.	55·4
Lowest, air, on the 27th at 7h 40m a.m.	29·0
Highest, sun, on the 14th	104·3
Lowest, grass, on the 27th	21·2

Rain on the 1st, 6th, 7th, 8th, 10th, 11th, 12th, 13th, 14th, 15th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 25th, and 28th.
Snow on the 18th.
Hail on the 18th, 22nd, and 23rd.
Sleet on the 21st.
Fog on the 9th, 20th, 25th, and 27th.
Gale on the 14th (night) and 15th (early morning).
Solar halo on the 2nd, 3rd, 12th, 13th, 14th, 15th, 16th, 17th (with 46° halo. and contact arch to both halos), 18th (with contact arch and 46° halo), 19th (with contact arch), 20th, 21st, 22nd, 23rd, 26th, and 28th.
Parhelion on the 12th, 21st, and 22nd.
Lunar halo on the 1st, 2nd, 3rd, 7th, 9th, and 10th.
Lunar corona on the 1st, 2nd, 3rd, 7th, and 9th.
Zodiacal light on the 15th, 18th (very bright), 19th, 22nd, 24th, 25th, 26th, and 27th.

MARCH.

Temperature.

	°
Highest, air, on the 31st at 2h 25m p.m.	63·6
Lowest, air, on the 11th at {4h 55m a.m. / 6h 10m a.m.}	29·5
Highest, sun, on the 31st	121·8
Lowest, grass, on the 22nd	22·0

Rain on the 1st, 4th, 5th, 7th, 8th, 9th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 29th, and 30th.
Snow on the 10th and 20th.
Hail on the 10th, 14th, 19th, 24th, and 27th.
Sleet on the 9th, 10th, 18th, 19th, 20th, and 21st.
Fog on the 25th.
Gale on the 5th, 6th, and 16th.
Solar halo on the 1st, 3rd, 6th, 11th, 13th, 14th, 16th, 17th (with contact arch), 18th, 19th, 21st (with contact arch), 24th, 25th, 26th, 28th, 30th, and 31st.
Parhelia on the 1st, 11th, 16th, 17th, 18th, 19th, and 31st.
Lunar halo on the 3rd, 12th, 13th, and 31st.
Lunar corona on the 3rd, 11th, 12th, and 31st.
Paraselenæ on the 12th.
Zodiacal light on the 14th (brilliant), 16th, 18th, 19th, 21st, and 22nd.
Zodiacal band on the 16th and 19th.
Gegenschein on the 1st, 2nd, 16th, 19th, and 21st.
Thunder on the 19th, about 2h p.m.

APRIL.

Temperature.

	°
Highest, air, on the 21st at 4h 15m p.m.	69·7
Lowest, air, on the 16th at 5h 50m a.m.	34·4
Highest, sun, on the 25th	127·4
Lowest, grass, on the 15th	26·5

Rain on the 2nd, 4th, 5th, 6th, 7th, 8th, 9th, 11th, 23rd, and 24th.
Hail on the 4th, 7th, and 8th.
Fog on the 29th.
Gale on the 6th.
Solar halo on the 1st, 2nd, 3rd (with contact arch), 4th, 5th, 7th, 9th, 10th, 11th, 13th, 22nd, 23rd, and 24th.
Parhelion on the 4th.
Lunar halo on the 1st, 3rd, 4th, 6th, 9th, and 10th.
Lunar corona on the 1st and 6th.
Paraselenæ on the 10th.
Zodiacal light on the 11th, 16th, and 22nd.
Lightning on the 2nd, evening; and 22nd, about 9h p.m.

* Amounts of Rainfall under 0in·005 are not included in this summary.

MAY.

Temperature.

	°
Highest, air, on the 22nd at $5^h\ 20^m$ p.m.	75·2
Lowest, air, on the 2nd at $3^h\ 35^m$ a.m.	32·1
Highest, sun, on the 20th	130·8
Lowest, grass, on the 2nd	22·3

Rain on the 1st, 3rd, 4th, 5th, 6th, 7th, 8th, 10th, 11th, 23rd, 24th, 28th, and 31st.
Hail on the 8th.
Solar halo on the 1st, 3rd, 4th, 7th, 8th, 10th, 11th (with contact arch), 12th, 17th, and 18th.
Parhelia on the 4th and 12th.
Sun pillar on the 18th.
Lunar halo on the 2nd and 8th.
Lunar corona on the 2nd.
Thunderstorm on the 8th, $3\frac{3}{4}^h$ p.m. (slight); and 23rd, about 4^h a.m. (slight).
Lightning and thunder on the 22nd, after 9^h p.m.

JUNE.

Temperature.

	°
Highest, air, on the 30th at $5^h\ 15^m$ p.m.	83·6
Lowest, air, on the 8th at $3^h\ 45^m$ a.m.	42·0
Highest, sun, on the 29th	148·6
Lowest, grass, on the 8th	37·2

Rain on the 5th, 6th, 7th, 8th, 9th, 10th, 11th, 18th, 21st, and 22nd.
Hail on the 7th and 18th.
Fog on the 19th.
Solar halo on the 1st, 8th, 9th, 10th, 11th, 14th, 21st, 22nd, 26th, 27th, and 28th.
Parhelion on the 7th and 14th.
Sun pillar on the 25th.
Lunar halo on the 11th.
Thunderstorm on the 18th, 4^h–5^h p.m. (heavy hail $4\frac{1}{2}^h$ p.m.).
Lightning on the 9th, about $2\frac{1}{2}^h$ a.m.
Distant thunder on the 14th, afternoon; 18th, $0\frac{1}{2}^h$–$1\frac{1}{2}^h$ p.m.; and 19th, $6^h\ 10^m$ and $6^h\ 15^m$ p.m.

JULY.

Temperature.

	°
Highest, air, on the 1st at $4^h\ 50^m$ p.m.	86·1
Lowest, air, on the 4th at $4^h\ 25^m$ a.m.	45·4
Highest, sun, on the 11th	139·0
Lowest, grass, on the 4th	38·8

Rain on the 1st, 3rd, 5th, 6th, 7th, 8th, 12th, 14th, 15th, 19th, 20th, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, and 31st.
Fog on the 10th and 22nd.
Solar halo on the 2nd, 7th, 11th, 12th, 13th, 14th, 15th, 18th, 19th, 20th, 22nd, 23rd, 24th, 25th, 26th, and 31st.
Parhelia on the 13th and 18th.
Thunderstorm on the 12th, $8\frac{1}{2}^h$–10^h a.m. and $5\frac{3}{4}^h$–6^h p.m.; and 19th, 9^h–10^h p.m.
Lightning and thunder on the 1st, 3^h–$3\frac{1}{2}$ p.m.; and 15th, $5\frac{1}{4}^h$–6^h p.m.
Lightning on the 1st, after $6\frac{1}{2}^h$ p.m.; 7th, $3\frac{3}{4}^h$ p.m.; and 11th, 10^h p.m.
Thunder on the 8th, $0\frac{1}{2}^h$ p.m.; 12th, 4^h–$6\frac{1}{2}^h$ p.m.; and 28th, 3^h p.m. (with shower).

AUGUST.

Temperature.

	°
Highest, air, on the 14th at $3^h\ 0^m$ p.m.	78·9
Lowest, air, on the 18th at $5^h\ 15^m$ a.m.	46·9
Highest, sun, on the 24th	141·0
Lowest, grass, on the 18th	39·6

Rain on the 1st, 2nd, 3rd, 4th, 5th, 6th, 8th, 10th, 15th, 21st, 22nd, and 26th.
Fog on the 22nd, 29th, and 30th.
Solar halo on the 2nd, 3rd, 4th, 11th, 18th, 21st, 22nd, 25th, and 26th.
Lunar halo on the 7th and 10th.
Paraselenæ on the 10th.
Lightning on the 14th, after $10\frac{1}{2}^h$ p.m.
Thunder on the 5th, $11\frac{1}{2}^h$ a.m.; and 21st, about $6\frac{1}{2}^h$ p.m.

SEPTEMBER.

Temperature.

Highest, air, on the 3rd at $4^h\ 50^m$ p.m. 76°·3

Lowest, air, on the 30th at $\left\{\begin{matrix}5^h\ 35^m \text{ a.m.}\\ 6^h\ 10^m \text{ a.m.}\\ 6^h\ 20^m \text{ a.m.}\end{matrix}\right\}$ 34°·3

Highest, sun, on the 9th ... ... 134°·0

Lowest, grass, on the 30th ... ... 25°·8

Rain on the 9th, 11th, 12th, 14th, 15th, 16th, 17th, and 20th.

Fog on the 2nd, 21st, 23rd, 24th, 25th, and 30th.
Gale on the 14th.
Solar halo on the 4th, 7th, 8th, 9th, 15th, 16th, 18th, 19th, 26th, 27th, and 28th.
Parhelia on the 4th.
Lunar halo on the 4th, 7th, 26th, and 28th.
Lunar corona on the 4th, 7th, 12th, and 28th.
Lightning on the 9th, 7^h p.m.; 20th, 1^h a.m.; and 26th, 8^h p.m.

OCTOBER.

Temperature.

Highest, air, on the 3rd at $1^h\ 30^m$ p.m. 64°·8

Lowest, air, on the 28th at $6^h\ 15^m$ a.m. 35°·1

Highest, sun, on the 9th ... ... 116°·4

Lowest, grass, on the 8th ... ... 27°·0

Rain on the 13th, 14th, 15th, 22nd, 24th, 25th, 27th, 29th, 30th, and 31st.
Fog on the 7th, 8th, 12th, 25th, and 28th.

Solar halo on the 1st, 3rd, 4th, 5th, 7th, 12th, 15th, 16th, 28th, and 31st (with 46° halo and contact arch).
Parhelion on the 5th and 15th.
Lunar halo on the 2nd, 3rd, 4th, 7th, 26th, 27th, 28th, 29th, and 31st.
Lunar corona on the 3rd, 4th, 27th, 28th, and 29th.
Paraselene on the 3rd.
Thunder on the 5th, 3^h p.m.

NOVEMBER.

Temperature.

Highest, air, on the 9th at $0^h\ 25^m$ p.m. 57°·9

Lowest, air, on the 19th at $\left\{\begin{matrix}3^h\ 20^m \text{ a.m.}\\ 3^h\ 30^m \text{ a.m.}\end{matrix}\right\}$ 27°·2

Highest, sun, on the 9th ... ... 112°·5

Lowest, grass, on the 18th ... ... 20°·0

Rain on the 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 24th, 25th, 26th, 27th, 28th, 29th, and 30th.
Snow on the 19th and 21st.

Hail on the 19th.
Sleet on the 15th.
Fog on the 4th, 6th, 7th, 9th, 10th, 17th, 18th, 19th, and 24th.
Solar halo on the 1st, 4th, 6th, 7th (with 46° halo and contact arch to both halos), 9th, 13th, 15th, and 27th.
Parhelia on the 4th, 6th, 7th, 13th, 15th, and 27th.
Lunar halo on the 2nd, 9th, 25th, 27th, 28th, and 30th.
Paraselenæ on the 28th.

DECEMBER.

Temperature.

Highest, air, on the 6th at $10^h\ 35^m$ p.m. 55°·1

Lowest, air, on the 25th at $3^h\ 50^m$ a.m. 26°·8

Highest, sun, on the 1st ... ... 92°·9

Lowest, grass, on the 25th ... ... 21°·8

Rain on the 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 10th, 11th, 12th, 13th, 14th, 15th, 17th, 18th, 19th, 21st, 23rd, 26th, 27th, 28th, 29th, 30th, and 31st.
Snow on the 21st, 25th, and 28th.
Hail on the 4th, 8th, 23rd, and 28th.
Sleet on the 5th, 26th, and 28th.
Fog on the 9th, 10th, 12th, 22nd, 23rd, 24th, 25th, and 26th.

Gale on the 2nd and 4th.
Solar halo on the 2nd, 3rd, 5th, 6th, 7th, 10th (with contact arch), 15th (with contact arch), 17th, 18th, 20th, 21st, 27th, 29th, 30th, and 31st.
Parhelia on the 5th (with 46° halo), 15th, 17th, 18th, and 31st.
Lunar halo on the 1st, 2nd, 3rd, 4th, 8th, 21st, 25th, 26th, 28th, and 31st.
Lunar corona on the 1st, 4th, 8th, 26th, and 31st.
Paraselenæ on the 4th and 25th.
Vertical lunar bar on the 31st.
Zodiacal light on the 16th and 19th.

Recorded at the Radcliffe Observatory by the Anemograph, at an elevation of 114 feet above the Ground.

Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.
Jan. 1	W	132	Feb. 1	SSW	658	Mar. 1	WSW	391	Apr. 1	SSW	268
2	W	254	2	S	328	2	W	322	2	SW	178
3	W	208	3	S	195	3	WSW	433	3	SW	214
4	SW	537	4	S	329	4	WSW	580	4	SSW	275
5	WSW	454	5	SSE	264	5	WSW	630	5	SW	568
6	W	543	6	SSE	368	6	WSW	703	6	WSW	685
7	WSW	210	7	S	546	7	Var.†	118	7	WSW	487
8	SSW	412	8	SSW	522	8	SW	450	8	WSW	354
9	WSW	454	9	SSE	161	9	Var.†	208	9	SSW	499
10	WSW	346	10	S	324	10	WNW	266	10	SSW	517
11	NE	406	11	S	550	11	WSW	221	11	SSW	312
12	NE	363	12	S	591	12	SW	461	12	WSW	278
13	NNE	397	13	SSW	564	13	SSW	434	13	SSW	263
14	NNE	434	14	SSW	728	14	SW	640	14	NW	311
15	NNE	232	15	SW	756	15	WSW	553	15	NE	132
16	NNE	205	16	WSW	147	16	W	700	16	E	203
17	NNE	138	17	SW	387	17	SW	390	17	E	371
18	ENE	159	18	WSW	384	18	SSW	434	18	E	285
19	ENE	230	19	SW	279	19	S	243	19	NE	225
20	NE	311	20	S	388	20	Var.†	310	20	NNE	151
21	NE	172	21	S	440	21	W	380	21	NE	109
22	E	190	22	S	504	22	W	186	22	SW	245
23	E	100	23	S	348	23	SSW	313	23	W	304
24	S	205	24	Var.†	107	24	SW	238	24	W	361
25	SSW	499	25	WNW	124	25	SSW	189	25	NNE	293
26	WSW	289	26	WSW	171	26	NW	128	26	Nearly Calm	57
27	WSW	256	27	S	147	27	Var.†	121	27	NE	124
28	SW	274	28	S	275	28	SSE	239	28	E	152
29	SSW	454				29	SSE	307	29	NE	95
30	SSW	543				30	S	492	30	NE	375
31	SSW	698				31	SSW	545			
Sum ...		10105	Sum ...		10585	Sum ...		11625	Sum ...		8691

† **Feb. 24.** SE till $0\frac{1}{2}^h$ p.m.; veering to N by $1\frac{1}{2}^h$ p.m.; NNE after. **Mar. 7.** WSW till $6\frac{1}{2}^h$ a.m.; nearly calm till $6\frac{1}{2}^h$ p.m.; SW after. **Mar. 9.** WNW till $6\frac{1}{2}^h$ a.m.; backing to NE by $9\frac{1}{2}^h$ a.m.; NNE after. **Mar. 20.** Slowly backing from S to SW. **Mar. 27.** NW till 4^h p.m.; N till 7^h p.m.; then veering to SSE by midnight.

Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.
May 1	NE	307	June 1	NW	233	July 1	Var.†	148	Aug. 1	SSE	251
2	E	231	2	Var.†	167	2	S	264	2	SSW	397
3	SSE	357	3	NE	151	3	NW	281	3	SSW	289
4	SW	499	4	Var.†	201	4	SW	202	4	SSW	193
5	SW	562	5	NW	298	5	SSE	234	5	Var.†	164
6	SW	354	6	NNW	239	6	SW	296	6	SW	337
7	SW	535	7	NW	228	7	SSW	260	7	WSW	223
8	WSW	536	8	N	317	8	SSW	258	8	S	427
9	NW	421	9	Var.†	135	9	WSW	123	9	SSW	557
10	WSW	245	10	ESE	354	10	ESE	156	10	WSW	228
11	W	231	11	NNE	391	11	E	185	11	WNW	107
12	NNW	265	12	NNE	181	12	Var.†	116	12	ENE	169
13	W	252	13	NNE	410	13	WSW	185	13	E	165
14	NW	137	14	NNE	364	14	S	269	14	E	220
15	ENE	137	15	NNE	389	15	WSW	217	15	NE	128
16	NE	224	16	NNE	206	16	WSW	275	16	NNE	345
17	NNE	184	17	Nearly Calm	65	17	SW	211	17	NNE	205
18	NNE	130	18	Var.†	125	18	SW	254	18	Nearly Calm	61
19	N	194	19	W	116	19	SSE	271	19	ENE	116
20	Var.†	116	20	SSW	230	20	ESE	227	20	Var.†	80
21	WSW	213	21	SSW	237	21	WSW	104	21	WSW	155
22	Var.†	113	22	WSW	269	22	NW	279	22	SW	175
23	Var.†	238	23	W	290	23	W	352	23	SSW	298
24	N	274	24	WSW	253	24	W	368	24	Var.†	213
25	NNE	240	25	WNW	273	25	W	503	25	W	210
26	NNE	242	26	ENE	143	26	W	390	26	SSW	255
27	NNE	152	27	Var.†	194	27	WNW	210	27	NW	253
28	NW	102	28	Var.†	136	28	Var.†	109	28	W	94
29	WNW	134	29	W	135	29	N	163	29	W	92
30	WNW	94	30	SSW	181	30	Var.†	108	30	W	121
31	WNW	245				31	SSE	250	31	NE	83
Sum ...		7964	Sum ...		6911	Sum ...		7268	Sum ...		6611

† **May 20.** Nearly calm till $8\frac{1}{2}^h$ a.m.; WNW after. **May 22.** WSW till 2^h p.m.; backing to N by $5\frac{1}{2}^h$ p.m.; N after. **May 23.** Light airs till 8^h a.m.; then veering from S to NW by 11^h a.m.; NW after. **June 2.** SW till $1\frac{1}{2}^h$ p.m.; veering to NE by 4^h p.m.; NE after. **June 4.** Nearly calm till 7^h a.m.; N after. **June 9.** Light airs till 2^h p.m.; NNE after. **June 18.** SSE till 3^h p.m.; veering through $427\frac{1}{2}°$ to SW by $6\frac{1}{2}^h$ p.m.; SW after. **June 27.** Veering from SSE at midnight to WSW by 8^h a.m.; WSW till 4^h p.m.; veering to NNW by 5 p.m.; NNW after. **June 28.** Light airs till 1^h p.m.; WSW after. **July 1.** Light airs till $11\frac{1}{2}^h$ a.m.; ENE till 4^h p.m.; S till $6\frac{1}{2}^h$ p.m.; then veering to ESE by midnight. **July 12.** Nearly calm till $8\frac{1}{2}^h$ a.m.; then veering from SSW through 405° to WSW by 6^h p.m.; WSW after. **July 28.** NW till $11\frac{1}{2}^h$ p.m.; then veering through 405° to N by 3^h p.m.; N after. **July 30.** NNE till 10^h a.m.; NW till $4\frac{1}{2}^h$ p.m.; backing to SE by $6\frac{1}{2}^h$ p.m.; SE after. **Aug. 5.** Gradually backing from SSW at midnight to WSW by 7^h p.m.; WSW after. **Aug. 20.** Light airs. **Aug. 24.** SSE till 7^h p.m.; veering to NW by 10^h p.m.; NW after.

Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.
Sept. 1	E	124	Oct. 1	WSW	202	Nov. 1	E	341	Dec. 1	SSW	596
2	Nearly Calm	54	2	Var.†	141	2	ESE	307	2	S	672
3	Calm	45	3	WSW	273	3	SSE	241	3	SSW	684
4	NE	252	4	WNW	245	4	ENE	171	4	SSW	790
5	ENE	271	5	W	214	5	ESE	266	5	SW	636
6	ENE	165	6	N	200	6	SSW	148	6	SSW	402
7	ENE	140	7	E	79	7	WSW	142	7	SSW	533
8	Var.†	164	8	SW	71	8	SW	215	8	SSW	564
9	SE	151	9	NW	145	9	SSW	335	9	Var.†	182
10	ESE	202	10	N	183	10	SW	272	10	NNW	236
11	SW	353	11	ESE	160	11	WSW	604	11	E	429
12	Var.†	321	12	SSE	129	12	W	462	12	E	211
13	WSW	419	13	N	145	13	SW	570	13	SE	295
14	SW	591	14	N	268	14	W	316	14	Var.†	192
15	SW	349	15	NNE	207	15	Var.†	343	15	Var.†	231
16	SW	355	16	NNE	304	16	N	417	16	W	335
17	SW	570	17	NNE	222	17	N	174	17	SSW	474
18	W	412	18	N	162	18	N	89	18	SSW	434
19	WNW	352	19	NNE	151	19	WNW	213	19	SW	361
20	NW	363	20	NNE	182	20	ENE	236	20	S	217
21	NNW	225	21	ENE	126	21	NE	220	21	Var.†	274
22	Nearly Calm	64	22	SSE	308	22	NE	421	22	NNW	167
23	S	131	23	SSW	313	23	NNE	292	23	NNW	150
24	SSE	85	24	SE	111	24	SW	235	24	N	103
25	SSE	112	25	Var.†	269	25	SW	274	25	SSE	159
26	W	138	26	W	311	26	SSW	558	26	S	362
27	W	177	27	WSW	243	27	SW	395	27	S	556
28	W	336	28	SSW	133	28	SSW	472	28	Var.†	334
29	NNW	167	29	NNE	328	29	SSW	631	29	WSW	366
30	Var.†	76	30	NE	399	30	SSW	721	30	SSE	480
			31	E	297				31	S	245
Sum ...		7164	Sum ...		6521	Sum ...		10081	Sum ...		11670

† **Sept. 8.** ENE till $6\frac{1}{2}^h$ a.m.; veering to SSW by $10\frac{1}{4}^h$ a.m.; SSW after. **Sept. 12.** WSW till noon; backing to WNW by $9\frac{1}{2}^h$ p.m.; NW after. **Sept. 30.** Nearly calm till 10^h a.m.; SW after. **Oct. 2.** WSW till $9\frac{1}{2}^h$ a.m.; veering to NE by 2^h p.m.; then nearly calm till $7\frac{1}{2}^h$ p.m.; S after. **Oct. 25.** Nearly calm till 8^h a.m.; S till 8^h p.m.; veering to W by 10^h p.m. **Nov. 15.** SSE till 9^h a.m.; veering to WSW by $10\frac{1}{2}^h$ a.m.; WSW till $1\frac{1}{2}^h$ p.m.; then backing to NNE by midnight. **Dec. 9.** S till 7^h a.m.; nearly calm till 1^h p.m.; NNE after. **Dec. 14.** E till $3\frac{1}{4}^h$ a.m.; veering to SW by $5\frac{1}{2}^h$ a.m.; SSW after. **Dec. 15.** SW till 4^h a.m.; backing to WSW by 10^h a.m.; WSW after. **Dec. 21.** ESE till 4^h a.m.; nearly calm till $6\frac{1}{2}^h$ a.m.; veering from SE to WSW by $7\frac{1}{2}^h$ a.m.; WSW after. **Dec. 28.** SSE till $3\frac{1}{4}^h$ a.m.; veering to WNW by $5\frac{1}{2}^h$ a.m.; WNW till $6\frac{1}{2}^h$ a.m.; then nearly calm till noon; NE till 7^h p.m.; backing to WSW by 9^h p.m.; WSW after.

METEOROLOGICAL OBSERVATIONS

MADE AT THE

RADCLIFFE OBSERVATORY, OXFORD,

1915.

JANUARY, 1915.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	28·631	40·6	39·2	43·9	34·0	43·4	26·9	SSE	356	4·0	10·0	0·00	0·546	1
2	28·653	40·4	38·5	46·1	37·6	83·8	30·1	SSW	222	2·3	4·7	3·95	0·078	2
3	28·534	38·8	38·3	41·7	34·3	42·2	31·3	Var.	253	1·7	10·0	0·00	0·797	3
4	28·994	39·6	37·9	44·2	34·1	87·0	31·1	W	208	2·7	6·0	3·15	0·233	4
5	29·380	40·7	39·5	45·4	35·8	53·8	26·6	SSW	372	2·0	6·7	0·00	0·008	5
6	29·594	44·0	42·4	46·7	39·4	66·1	33·9	SSW	151	2·3	6·3	0·80	0·081	6
7	29·152	42·5	41·7	46·4	41·1	48·3	37·1	SSW	412	1·7	7·0	0·00	0·165	7
8	29·182	40·1	38·6	43·5	39·0	78·4	34·4	SW	406	4·3	7·3	3·40	0·128	8
9	29·220	39·2	37·3	44·4	36·7	79·4	31·6	W	246	2·7	5·3	2·15	0·080	9
10	29·382	39·3	38·2	46·5	32·8	46·3	24·7	SW	417	2·7	7·3	0·30	0·222	10
11	29·195	41·2	38·4	46·8	38·1	84·3	32·7	WSW	382	4·0	4·0	4·00	0·055	11
12	29·740	41·4	38·8	44·4	37·0	62·4	30·3	W	249	2·0	10·0	0·15	0·012	12
13	29·792	48·1	47·1	51·7	40·0	78·6	36·7	SW	319	2·7	7·3	0·45	...	13
14	29·776	48·4	46·8	49·5	45·7	72·5	38·8	SW	506	3·7	10·0	0·15	0·017	14
15	29·454	47·2	44·7	50·1	45·6	84·0	41·7	SW	630	5·3	9·7	1·85	0·056	15
16	29·375	42·2	38·6	47·0	37·6	89·6	33·2	WNW	346	5·0	5·7	3·45	0·023	16
17	29·894	36·3	33·6	40·6	33·8	80·0	24·9	NW	411	2·7	0·0	6·75	...	17
18	30·231	35·3	32·0	40·8	32·4	85·9	26·3	NW	191	2·0	2·0	5·55	...	18
19	30·241	39·0	37·9	43·8	34·3	54·3	27·0	WSW	226	1·0	10·0	0·00	...	19
20	29·808	45·0	43·6	47·1	40·9	49·4	38·3	SW	352	2·7	10·0	0·00	0·095	20
21	28·872	40·4	38·5	47·4	33·5	76·5	28·2	W	320	2·7	9·0	0·30	0·187	21
22	28·954	37·0	35·7	40·4	31·8	43·9	27·3	NNW	200	2·7	10·0	0·00	0·186	22
23	29·258	36·9	36·2	40·4	34·7	48·0	32·0	N	235	1·0	9·3	0·00	0·200	23
24	29·507	39·8	38·8	42·0	38·7	49·0	34·3	N	98	1·3	10·0	0·00	0·005	24
25	29·471	36·1	35·4	40·0	34·8	58·6	26·6	NNE	62	1·0	9·0	0·15	...	25
26	29·386	33·9	33·1	39·4	30·9	63·7	24·2	NE	162	0·7	8·3	1·80	...	26
27	29·361	33·9	31·7	37·4	30·8	40·0	25·8	ENE	193	1·3	9·0	0·00	...	27
28	29·452	33·1	30·5	35·8	30·9	45·8	26·0	NE	74	1·0	9·7	0·00	...	28
29	29·559	32·9	31·4	38·6	31·4	61·6	23·1	WNW	80	1·0	4·3	3·30	...	29
30	29·699	34·7	32·9	39·1	30·8	48·7	22·2	SW	268	1·0	10·0	0·00	...	30
31	29·356	37·1	35·8	42·8	34·8	87·2	30·9	WSW	249	2·0	8·3	3·10	0·022	31
Mean or Sum.	29·390	39·52	37·84	43·67	35·91	64·28	30·26	...	8596	2·36	7·62	44·75	3·196	Mean or Sum.

Weather.

1. Rainy after 10h a.m. 2. Rain 7h–8h a.m.; fine to very fine after 9h a.m. 3. Gloomy; rain. 4. Fine to very fine after noon. 5. Overcast till afternoon. 6. Cloudy to overcast after 10h a.m. 7. Slight rain at times. 8. Changeable, showers. 9. Showery till afternoon. 10. Rain after 10h a.m. 11. Fine intervals. 12. Generally overcast. 13. Generally overcast. 14. Overcast. 15. Fine at times early afternoon. 16. Cloudy generally till afternoon. 17. Very fine. 18. Very fine to fine. 19. Generally overcast. 20. Drizzle afternoon and evening. 21. Overcast to cloudy; rain early. 22. Occasional rain after 10h a.m. 23. Overcast to cloudy; misty. 24. Overcast. 25. Cloudy. 26. Fog till midday, then cloudy to overcast. 27. Overcast day. 28. Generally overcast. 29. Fine to very fine after 10h a.m.; hazy. 30. Overcast generally. 31. Fine intervals.

FEBRUARY, 1915.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·716	40·1	38·4	47·1	34·1	84·3	24·0	S W	364	1·3	5·0	4·70	0·107	1
2	29·483	47·3	45·6	50·7	42·1	56·9	38·8	S S W	469	4·7	9·7	0·00	0·336	2
3	29·561	47·8	44·7	51·4	37·9	79·7	32·9	S	551	5·0	9·0	0·25	...	3
4	29·500	47·0	44·4	51·1	44·6	80·7	40·6	S S E	255	2·7	9·0	0·65	...	4
5	29·486	46·5	44·2	49·0	42·7	75·9	36·7	S S E	384	3·0	10·0	0·25	0·119	5
6	29·242	44·0	42·9	47·5	43·5	75·5	39·9	Var.	143	2·3	7·7	1·75	0·407	6
7	29·430	43·6	42·3	49·4	40·4	51·0	35·6	S S E	442	2·3	9·7	0·00	0·290	7
8	29·434	39·5	37·9	46·7	35·7	88·9	31·2	S S W	435	3·0	7·0	4·50	0·154	8
9	29·107	41·0	38·3	46·6	36·4	99·2	31·3	S	272	3·0	4·0	4·30	0·230	9
10	29·299	40·6	38·2	48·4	35·1	96·9	30·0	S	129	1·7	2·0	4·80	0·021	10
11	29·323	34·4	33·5	44·3	28·1	91·8	22·1	S S E	93	0·7	5·7	5·75	0·005	11
12	29·195	34·3	33·1	42·4	28·0	87·8	20·3	E S E	204	1·0	1·7	5·25	...	12
13	28·482	38·8	38·0	44·1	32·3	74·0	23·7	S S E	384	3·7	10·0	0·35	0·476	13
14	28·818	38·6	37·2	43·0	37·6	52·7	35·1	N W	382	3·3	10·0	0·00	0·088	14
15	29·542	36·8	34·6	43·9	33·0	96·4	24·0	W N W	149	2·0	3·7	5·15	...	15
16	29·850	37·9	35·9	44·9	27·4	83·9	19·3	Var.	432	1·3	4·0	4·25	0·025	16
17	29·223	45·9	44·8	48·4	41·1	60·2	38·4	S	481	4·7	8·0	0·30	0·586	17
18	28·959	45·2	43·5	49·6	41·8	78·6	38·5	S	460	3·7	9·3	0·55	0·179	18
19	28·819	42·8	41·2	48·4	40·0	98·4	30·8	S W	146	2·7	5·7	4·80	0·034	19
20	28·955	37·2	34·8	47·4	32·1	97·5	23·3	W N W	77	1·0	6·0	2·50	...	20
21	29·085	38·3	36·2	46·7	28·7	97·3	21·2	W S W	153	1·0	2·3	7·05	0·009	21
22	29·018	37·6	36·5	41·9	35·0	83·9	28·7	Var.	202	1·0	9·3	0·85	0·245	22
23	29·413	34·8	32·6	40·7	32·5	93·2	27·4	N W	288	1·7	5·7	5·70	0·085	23
24	29·924	32·8	30·0	39·4	31·0	87·0	25·7	N N W	186	2·3	0·7	7·45	0·042	24
25	30·172	36·1	33·3	44·7	26·6	97·8	20·8	W	132	1·3	1·3	7·30	...	25
26	30·085	38·5	35·6	43·4	28·1	89·9	20·1	S	426	2·7	4·7	3·90	0·004	26
27	29·662	43·1	40·5	46·2	39·3	87·7	37·0	W S W	432	3·0	10·0	1·40	0·112	27
28	29·537	41·3	37·9	46·6	36·4	101·6	30·6	W S W	542	4·3	5·3	8·15	0·065	28
Mean or Sum.	29·369	40·42	38·43	46·21	35·41	83·88	29·57	...	8613	2·51	6·30	91·90	3·619	Mean or Sum.

Weather.

1. Very fine till $2\frac{1}{2}^h$ p.m.; rain after $7\frac{1}{2}^h$ p.m. 2. Rain early and after 2^h p.m. 3. Overcast to cloudy. 4. Cloudy to overcast. 5. Overcast to cloudy; rain after 9^h p.m. 6. Overcast after 10^h a.m.; rainy. 7. Rainy after 9^h a.m. 8. Rain midday and evening. 9. Fine generally; rain early. 10. Fine to very fine generally. 11. Fog morning, then fine to very fine. 12. Fine; hazy. 13. Rainy. 14. Rainy till 3^h p.m. 15. Fine to very fine. 16. Very fine till early afternoon. 17. Rainy till afternoon. 18. Showery. 19. Changeable, showers. 20. Fine generally after 11^h a.m. 21. Very fine to fair. 22. Generally overcast; rainy after 3^h p.m. 23. Fine till 2^h p.m.; snow 4^h–$8\frac{1}{2}^h$ p.m. 24. Snow early, then fine. 25. Very fine to fine. 26. Very fine to fine till early afternoon. 27. Rain at first, then cloudy to overcast. 28. Very fine to fine.

MARCH, 1915.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·405	39·2	35·6	45·8	34·8	98·3	29·7	WNW	356	4·7	3·3	6·45	0·018	1
2	29·723	39·2	36·5	46·0	32·9	89·2	27·6	W	286	1·7	6·7	5·05	0·169	2
3	29·624	48·3	46·9	53·0	38·8	77·6	37·0	SSW	274	2·7	10·0	0·05	0·137	3
4	29·819	48·3	46·6	54·4	45·8	94·9	44·0	WSW	440	2·7	9·7	1·85	0·024	4
5	29·872	48·6	46·5	52·8	46·9	96·3	43·2	WSW	393	3·7	6·7	1·55	...	5
6	29·809	49·5	46·0	55·5	45·2	93·3	36·6	W	399	4·0	9·0	0·85	0·020	6
7	29·777	41·7	37·6	48·8	39·2	83·6	35·7	NNW	408	3·7	6·3	0·90	0·006	7
8	30·044	34·6	33·1	42·4	32·6	96·4	27·8	NNE	255	2·7	9·3	4·25	0·037	8
9	30·210	38·8	35·2	44·7	32·3	95·7	27·7	N	138	1·3	8·3	2·55	...	9
10	30·062	41·4	38·1	44·1	35·1	80·4	28·8	W	169	1·3	9·0	0·60	...	10
11	29·731	46·3	44·3	53·3	40·3	117·6	34·2	Var.	97	1·0	6·3	1·20	0·053	11
12	29·995	45·8	43·9	50·0	38·3	66·7	29·4	NNW	137	1·0	9·3	0·05	...	12
13	29·956	42·9	41·4	51·3	35·5	92·5	27·9	WNW	198	1·0	10·0	1·80	...	13
14	30·005	46·1	44·6	55·0	44·8	99·0	42·9	NNW	170	1·3	10·0	0·80	...	14
15	30·009	44·1	41·8	50·1	41·6	67·5	33·0	WNW	169	1·0	6·7	0·85	...	15
16	29·906	44·1	41·2	47·2	39·1	60·7	28·7	N	96	1·0	10·0	0·00	...	16
17	29·609	43·4	39·7	47·7	41·8	68·0	33·0	W	131	1·0	10·0	0·00	...	17
18	29·232	32·1	30·8	43·0	31·2	102·4	26·2	Var.	443	1·7	10·0	2·25	0·069	18
19	29·488	34·8	30·9	41·1	30·2	95·1	22·6	NNW	245	3·0	4·3	8·80	0·034	19
20	29·769	39·1	35·8	48·4	28·3	107·9	20·3	WSW	209	2·3	6·3	3·25	0·006	20
21	29·941	43·4	39·2	54·4	31·3	108·6	24·0	SW	131	0·7	0·7	10·45	0·004	21
22	29·739	43·0	39·6	49·9	27·0	83·1	18·9	E	142	1·7	9·0	0·40	0·445	22
23	29·654	48·0	47·4	55·5	42·7	78·7	36·8	SSE	120	1·0	6·7	0·45	0·077	23
24	29·695	49·9	49·0	55·0	43·0	77·1	35·2	Nearly Calm	168	0·3	10·0	0·10	0·143	24
25	29·882	37·9	36·6	51·2	35·1	74·0	25·5	NE	208	2·7	6·7	0·50	0·050	25
26	29·674	34·9	32·3	41·4	29·7	82·2	21·4	NE	212	1·7	8·7	2·15	...	26
27	29·518	35·7	32·5	43·0	25·6	103·4	19·0	NE	260	2·0	3·3	7·60	0·002	27
28	29·535	35·6	31·3	42·7	26·2	107·0	20·6	NE	186	2·7	6·0	10·05	...	28
29	29·612	34·5	31·6	42·5	27·3	102·0	22·4	NE	144	1·0	1·3	7·00	...	29
30	29·602	38·4	34·2	46·4	24·8	104·5	16·2	NE	137	1·0	1·3	10·80	...	30
31	29·857	41·6	36·9	51·8	27·2	103·9	18·2	Var.	116	0·7	1·0	10·20	...	31
Mean or Sum.	29·766	41·65	38·94	48·66	35·31	90·57	28·85	...	6837	1·88	6·96	102·80	1·294	Mean or Sum.

Weather.

1. Changeable; light showers. 2. Fine till midday; rain after $7\frac{1}{4}^h$ p.m. 3. Overcast; rain early. 4. Cloudy to overcast. 5. Cloudy to overcast generally. 6. Cloudy to overcast. 7. Fair intervals; fine evening. 8. Fine intervals. 9. Fair till early afternoon. 10. Cloudy to overcast. 11. Overcast to cloudy till $8\frac{1}{2}^h$ p.m. 12. Overcast. 13. Cloudy to fine 3^h–8^h p.m. 14. Overcast generally. 15. Overcast till afternoon. 16. Overcast. 17. Overcast generally. 18. Fine at times in afternoon, otherwise frequent snow. 19. Cloudy to fine. 20. Fine generally to very fine. 21. Very fine. 22. Rain after 2^h p.m. 23. Overcast till early afternoon. 24. Overcast; rain 6^h–8^h a.m. 25. Overcast till afternoon. 26. Overcast to cloudy. 27. Fine generally. 28. Very fine to fair. 29. Very fine to fine. 30. Very fine. 31. Very fine to fine.

APRIL, 1915.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	30·072	42·9	39·8	53·4	33·3	118·4	24·0	NW	142	1·0	9·0	1·05	...	1
2	29·985	46·2	42·1	50·1	34·7	102·8	26·2	SW	327	1·7	6·0	3·50	0·007	2
3	29·742	44·7	44·1	52·0	42·9	57·9	40·4	SW	393	2·3	10·0	0·00	0·141	3
4	29·612	48·1	45·0	56·9	44·3	116·0	39·7	WSW	242	2·0	7·0	5·25	...	4
5	29·554	44·2	40·9	51·9	42·0	86·3	34·0	W	250	1·0	6·7	0·50	0·007	5
6	29·186	44·1	42·1	48·6	35·3	66·7	27·9	SSW	369	4·3	10·0	0·85	0·091	6
7	29·042	43·2	39·6	52·6	42·3	111·7	37·6	WSW	444	3·3	5·7	9·10	0·029	7
8	29·358	45·6	40·9	53·4	38·3	110·6	32·3	W	477	4·3	4·0	7·10	0·033	8
9	29·721	43·2	38·9	51·6	37·7	114·7	32·1	WNW	314	4·3	7·3	7·80	0·040	9
10	29·863	44·5	40·1	52·0	39·0	108·9	33·5	NNW	131	1·7	8·3	9·05	0·070	10
11	30·063	47·2	45·4	51·7	42·3	103·0	37·7	WSW	36	0·7	10·0	0·10	0·017	11
12	29·989	46·2	45·1	52·4	41·5	78·3	40·1	Var.	328	1·7	10·0	0·00	0·337	12
13	29·906	44·3	39·7	53·1	37·7	115·1	33·6	N	185	3·0	3·3	9·15	...	13
14	29·887	45·0	40·1	54·8	33·0	106·0	24·7	N	102	0·7	6·7	6·20	...	14
15	29·961	48·4	45·6	57·8	37·6	119·0	27·9	WSW	150	1·0	9·3	0·50	...	15
16	29·979	51·1	46·2	61·7	38·7	120·2	30·5	WSW	215	1·0	4·0	6·95	...	16
17	30·054	46·5	40·7	53·1	35·7	110·9	28·7	NNE	112	1·7	6·7	9·70	...	17
18	29·985	47·5	41·7	54·5	38·2	111·1	31·0	WSW	172	1·0	5·0	2·40	...	18
19	29·881	47·9	45·5	55·5	37·0	110·9	26·7	WSW	382	2·7	7·3	4·15	...	19
20	29·717	46·4	43·0	55·8	41·3	96·1	36·6	WNW	266	3·0	6·7	1·05	0·032	20
21	29·948	44·0	38·4	51·5	33·2	114·0	26·9	NNW	104	1·7	3·0	9·70	...	21
22	29·904	46·4	42·6	51·8	35·3	98·7	27·0	WNW	146	1·0	9·3	0·55	...	22
23	29·948	43·2	40·1	51·0	39·0	94·7	32·1	NE	120	1·0	7·0	2·90	...	23
24	29·885	44·8	41·3	52·6	31·8	102·4	24·8	NNE	237	1·3	4·0	3·65	0·013	24
25	29·905	47·1	41·9	55·3	33·0	122·2	27·5	NE	360	3·0	6·7	3·95	0·010	25
26	30·072	45·7	43·8	55·8	43·7	123·9	41·5	NE	412	2·7	6·7	2·80	...	26
27	30·085	46·4	43·7	56·0	41·1	117·1	40·8	NE	322	4·0	4·0	7·80	...	27
28	30·013	55·8	49·2	68·8	41·1	122·9	37·0	NE	269	2·3	0·0	13·25	...	28
29	29·957	56·9	48·2	68·9	38·3	124·8	31·1	E	103	1·3	0·0	13·55	...	29
30	29·795	58·8	50·9	71·5	38·8	124·9	31·3	SSW	259	1·7	0·7	12·95	...	30
Mean or Sum.	29·836	46·88	42·89	55·20	38·27	107·01	32·17	...	7369	2·08	6·15	155·50	0·827	Mean or Sum.

Weather.

1. Overcast to cloudy. 2. Cloudy to overcast afternoon. 3. Frequent light rain. 4. Fair to fine after noon. 5. Very fine evening. 6. Generally overcast. 7. Cloudy generally till afternoon. 8. Variably cloudy till evening. 9. Variable, showers. 10. Cloudy to fine till evening. 11. Overcast. 12. Gloomy; rain early and after 6^h p.m. 13. Fine to cloudy. 14. Fair. 15. Fair intervals. 16. Very fine to fair, then overcast at times. 17. Fine till evening. 18. Fair generally; hazy. 19. Cloudy to overcast generally. 20. Overcast till afternoon. 21. Fine to cloudy. 22. Cloudy to overcast. 23. Cloudy to overcast till afternoon. 24. Overcast 11^h a.m. to 8^h p.m. 25. Overcast after 11^h a.m. 26. Overcast to cloudy generally. 27. Very fine 11^h a.m. to 9½^h p.m. 28. Very fine. 29. Very fine. 30. Very fine.

MAY, 1915.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·620	55·9	52·0	64·5	50·9	129·9	43·5	SSW	270	2·7	9·3	1·80	...	1
2	29·706	49·0	44·1	60·0	44·6	122·0	42·7	NNE	230	1·0	6·7	9·35	0·119	2
3	29·914	47·3	40·2	54·8	35·2	118·3	30·1	ENE	303	3·0	4·0	9·60	...	3
4	29·764	50·2	46·0	58·3	42·4	103·0	40·5	E	97	2·3	9·3	0·05	0·004	4
5	29·700	56·9	53·9	67·4	48·1	112·2	40·7	Var.	90	0·7	8·0	1·85	0·041	5
6	29·724	61·6	55·6	73·0	51·1	130·9	47·5	NW	118	1·0	5·0	9·10	...	6
7	29·811	61·7	57·1	71·9	49·0	121·2	44·0	ENE	192	1·0	6·3	4·95	...	7
8	29·994	58·2	52·7	69·5	48·6	124·8	41·0	NE	385	3·0	4·3	12·60	...	8
9	30·211	49·2	42·9	60·0	41·1	117·0	37·0	NE	305	3·3	0·0	13·85	...	9
10	30·061	51·2	47·2	63·1	36·7	125·8	29·0	NE	128	2·3	5·3	9·60	...	10
11	29·740	57·8	50·6	70·4	38·2	119·9	31·3	Var.	172	1·3	2·7	12·30	...	11
12	29·519	51·9	49·1	61·3	44·1	116·8	44·3	NNW	263	2·3	9·0	1·35	0·027	12
13	29·415	39·7	39·6	44·7	37·5	60·7	37·2	NE	360	3·7	10·0	0·00	1·438	13
14	29·801	44·6	39·7	52·9	33·2	118·7	32·0	N	91	1·7	6·7	7·25	0·276	14
15	29·929	50·1	44·0	57·6	32·8	120·8	26·0	Var.	114	1·0	6·7	10·00	0·005	15
16	29·708	50·3	48·3	60·0	42·1	119·7	41·4	Var.	126	1·0	10·0	1·95	0·053	16
17	29·444	51·4	49·8	55·7	50·0	74·7	48·8	E	274	1·3	10·0	0·00	0·390	17
18	29·651	44·6	42·8	55·6	43·4	108·3	38·0	NNE	182	2·3	6·7	5·75	0·693	18
19	29·810	52·5	47·2	62·9	36·1	120·5	29·8	ESE	177	1·0	3·3	12·50	...	19
20	29·775	54·5	52·8	62·4	46·8	121·9	45·2	S	163	1·3	7·0	2·15	0·074	20
21	29·806	57·8	54·9	64·1	47·2	117·2	46·1	NE	163	1·0	10·0	2·60	0·398	21
22	29·915	58·4	55·8	67·0	52·2	120·8	49·1	NNE	255	1·7	6·7	4·65	0·043	22
23	30·013	60·8	54·1	71·5	51·2	127·8	46·9	NNE	337	3·7	3·3	13·05	...	23
24	29·996	60·6	53·0	72·3	45·6	128·1	40·8	NE	301	3·3	0·0	15·15	...	24
25	29·864	56·0	52·3	74·4	45·2	127·9	43·0	NE	209	2·0	3·7	9·70	...	25
26	29·812	61·2	55·4	73·7	49·8	128·7	45·4	NE	426	3·0	0·7	14·25	...	26
27	29·936	51·6	46·2	58·2	45·3	122·0	43·5	NE	299	4·0	4·7	12·65	...	27
28	29·830	48·7	44·8	60·1	40·3	125·7	37·0	NE	117	1·7	6·7	7·55	...	28
29	29·575	51·4	47·1	59·5	45·6	118·6	38·2	NNW	237	1·7	8·7	4·65	...	29
30	29·839	46·2	41·2	55·4	38·3	121·3	33·8	N	100	1·3	5·3	7·40	...	30
31	29·942	52·8	46·0	62·5	35·0	126·1	27·2	NNW	59	1·0	6·3	11·60	...	31
Mean or Sum.	29·801	53·04	48·59	62·73	43·47	117·78	39·39	...	6543	1·99	6·01	229·25	3·561	Mean or Sum.

Weather.

1. Overcast till noon. 2. Rain 4¼h–7¼h a.m.; fine 9h a.m. to 9h p.m. 3. Very fine to fine generally. 4. Generally overcast. 5. Fair generally. 6. Fine to very fine; hazy. 7. Fine to cloudy; hazy. 8. Very fine, but hazy till 7h p.m. 9. Very fine. 10. Very fine generally. 11. Very fine; hazy. 12. Cloudy to overcast. 13. Steady rain. 14. Rain early; cloudy generally after 9h a.m. 15. Cloudy to overcast after 10h a.m. 16. Fair to threatening. 17. Frequent light rain. 18. Rain till 10½h a.m.; very fine evening. 19. Very fine to fine. 20. Overcast till afternoon. 21. Cloudy to overcast; slight thunderstorm 3¼h–3¾h p.m. 22. Overcast till afternoon. 23. Fine to very fine. 24. Very fine. 25. Very fine after 10h a.m. 26. Very fine. 27. Fine to very fine. 28. Cloudy to overcast till early afternoon. 29. Generally cloudy to overcast. 30. Cloudy generally 10h a.m.–4h p.m. 31. Fine.

JUNE, 1915.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·845	57·6	50·7	64·5	49·2	122·7	48·0	WNW	73	0·7	6·7	3·35	...	1
2	29·819	60·9	52·1	69·6	42·7	128·0	35·1	SSW	227	1·3	4·0	10·95	...	2
3	29·805	53·8	51·9	61·5	47·6	95·9	47·2	SSW	130	1·7	7·3	1·20	0·017	3
4	29·990	57·0	54·3	71·6	48·1	127·9	40·7	SW	207	1·0	7·0	6·95	0·002	4
5	29·945	62·6	58·3	70·5	53·5	129·0	50·0	WSW	198	2·3	6·0	6·60	...	5
6	29·904	62·1	57·0	69·7	56·5	134·7	49·0	S	153	1·3	4·3	9·85	...	6
7	29·785	64·9	59·8	76·0	49·2	141·1	42·8	SSE	126	1·0	0·7	8·15	...	7
8	29·622	70·9	63·5	82·0	60·2	140·0	53·8	SW	169	1·7	2·3	14·85	...	8
9	29·685	63·0	58·5	70·0	49·2	113·5	43·1	ENE	120	0·7	10·0	1·90	...	9
10	29·722	62·4	56·7	72·9	59·4	130·0	55·3	NE	195	1·7	8·0	7·10	...	10
11	29·924	62·8	55·0	71·4	53·8	133·5	49·9	E	117	1·0	7·3	7·20	...	11
12	30·031	60·8	52·3	71·3	49·3	117·6	42·6	ENE	91	1·0	1·0	11·85	...	12
13	29·993	61·0	52·3	73·8	48·3	119·8	43·2	NE	307	1·7	3·3	10·75	...	13
14	29·990	55·5	48·8	67·2	49·2	127·1	47·6	NE	224	3·0	2·3	13·05	...	14
15	29·989	56·5	50·2	68·7	42·5	125·3	34·4	NE	149	2·0	2·7	12·25	...	15
16	29·936	56·0	50·9	71·0	43·0	125·9	39·0	NE	152	1·0	3·3	11·55	...	16
17	29·954	55·3	50·4	66·7	45·8	126·0	42·1	NE	242	2·3	8·3	9·75	...	17
18	29·975	53·6	47·0	64·0	45·2	125·2	42·2	NE	182	2·3	5·3	9·50	...	18
19	29·953	53·8	46·7	64·3	39·1	122·1	34·6	NE	113	1·3	3·0	14·70	...	19
20	29·836	59·5	50·5	69·4	39·7	126·4	33·6	SE	70	0·7	0·7	15·30	...	20
21	29·700	62·2	51·2	73·9	43·9	138·0	38·2	ENE	166	1·0	3·0	14·25	...	21
22	29·795	60·8	53·5	71·5	46·9	128·9	43·2	ENE	219	2·3	3·7	11·05	...	22
23	29·713	58·5	51·6	68·4	48·7	126·9	46·0	ENE	212	2·0	5·0	7·40	0·020	23
24	29·698	51·3	50·0	54·7	49·3	71·2	48·0	NE	205	1·0	10·0	0·00	0·024	24
25	29·658	56·6	54·6	70·5	50·3	129·7	50·6	Var.	175	1·0	10·0	3·80	0·256	25
26	29·651	61·5	54·5	68·0	54·6	135·0	52·5	SSW	209	2·3	7·3	11·40	0·342	26
27	29·571	55·5	53·8	63·7	51·4	128·9	47·2	S	151	1·0	7·3	4·00	0·378	27
28	29·531	59·2	55·6	66·4	53·3	128·3	48·8	WSW	196	1·3	9·0	1·85	0·084	28
29	29·510	61·3	56·1	68·8	50·6	117·7	45·8	W	119	1·0	9·3	4·25	...	29
30	29·568	60·2	56·2	69·5	54·2	133·9	49·1	W	109	1·0	7·0	2·60	0·260	30
Mean or Sum.	29·803	59·24	53·47	69·05	49·16	125·01	44·79	...	5006	1·45	5·50	247·40	1·383	Mean or Sum.

Weather.

1. Cloudy to overcast after 10^h a.m. 2. Very fine till afternoon. 3. Overcast till afternoon. 4. Fine to very fine after noon. 5. Fine. 6. Fair to very fine. 7. Very fine. 8. Very fine. 9. Generally overcast. 10. Fine to very fine 11^h a.m. till early evening. 11. Fine generally after 9^h a.m. 12. Fine; very hazy. 13. Fine but very hazy till evening. 14. Fine to very fine. 15. Very fine generally. 16. Very fine generally. 17. Fine to cloudy. 18. Cloudy to fine or very fine. 19. Fine to very fine. 20. Very fine. 21. Very fine generally. 22. Overcast in evening. 23. Very fine till afternoon. 24. Overcast. 25. Fine afternoon; thunderstorm 8^h p.m. 26. Very fine to fine till noon, then cloudy to fine. 27. Showery; fine intervals. 28. Showery after noon. 29. Cloudy to overcast. 30. Overcast to cloudy till evening; thunderstorm 2^h–2½^h p.m.

JULY, 1915.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·912	59·5	57·4	71·6	51·4	115·7	46·2	N	97	1·0	7·0	3·80	...	1
2	30·009	63·1	57·8	72·3	50·7	131·0	45·6	W S W	209	1·7	9·0	3·95	...	2
3	29·947	67·8	61·3	76·5	57·8	139·0	51·2	W S W	90	1·3	8·0	6·50	0·013	3
4	29·680	63·8	61·2	73·7	58·7	124·4	56·5	Var.	211	1·7	8·0	2·20	0·887	4
5	29·774	63·3	58·0	73·6	56·8	137·9	54·5	W S W	124	1·7	5·0	9·20	...	5
6	29·649	65·6	57·9	73·5	52·6	137·1	46·8	S S E	224	1·3	8·3	8·30	0·948	6
7	29·350	58·1	55·0	68·3	55·3	134·4	53·3	S S W	390	2·7	9·0	5·50	0·072	7
8	29·748	57·3	54·7	62·8	55·6	90·3	53·6	W	150	1·3	10·0	0·05	0·004	8
9	29·916	58·9	52·7	66·8	52·3	132·0	50·0	W N W	207	1·3	2·7	11·35	0·009	9
10	29·814	59·8	54·1	66·6	49·6	124·7	44·5	W	290	3·3	8·3	4·50	...	10
11	29·613	57·5	54·1	62·7	56·3	95·7	53·7	W S W	295	2·7	9·0	0·00	...	11
12	29·587	58·7	52·5	66·3	52·3	132·6	47·4	W	173	2·7	6·0	7·55	...	12
13	29·557	58·4	53·3	68·1	49·1	125·9	41·1	S W	188	1·7	7·3	4·95	0·003	13
14	29·504	58·2	53·5	65·5	47·6	125·3	40·9	S S W	181	2·0	9·3	3·95	0·230	14
15	29·466	58·2	52·2	66·0	47·2	136·2	43·5	W	231	3·0	6·3	12·20	...	15
16	29·314	55·2	53·9	59·4	50·2	76·3	43·0	S	389	2·3	10·0	0·15	0·803	16
17	29·394	55·3	52·3	62·2	55·0	106·1	49·5	W N W	271	4·3	9·0	1·85	0·027	17
18	29·971	57·6	52·2	67·3	47·3	138·5	39·5	W	220	1·3	9·3	7·20	...	18
19	29·819	61·0	58·2	67·6	56·1	95·0	52·0	S S W	342	3·3	10·0	0·05	0·024	19
20	29·710	58·5	52·6	66·0	56·0	133·4	52·4	W S W	319	4·0	8·7	6·80	0·329	20
21	29·745	59·0	53·5	66·3	52·6	128·8	49·4	S W	348	2·7	7·0	8·40	0·016	21
22	29·428	56·5	55·8	60·6	55·8	74·5	54·1	S S W	300	3·3	9·3	0·00	0·503	22
23	29·305	54·7	53·3	63·1	53·1	124·4	48·5	W S W	257	3·3	8·7	6·20	0·190	23
24	29·489	58·7	55·2	67·2	51·4	134·1	46·1	W S W	148	1·0	9·3	3·15	0·017	24
25	29·560	59·2	53·9	66·9	49·3	131·7	46·0	W S W	173	1·0	5·7	9·55	0·006	25
26	29·583	59·2	53·9	68·7	47·9	131·8	41·6	S S W	225	2·0	4·7	10·70	...	26
27	29·491	56·6	53·5	66·3	51·3	133·1	47·1	S S W	329	1·7	5·3	4·15	0·355	27
28	29·798	58·3	53·1	66·4	49·6	131·2	46·7	W S W	215	2·7	5·7	11·20	0·039	28
29	29·916	59·7	55·2	68·7	50·3	125·9	45·0	W	126	1·0	6·3	6·20	0·020	29
30	29·869	60·8	55·9	70·3	47·8	131·4	43·4	W	135	1·0	5·0	11·55	...	30
31	29·664	59·5	55·4	67·0	55·2	136·4	51·3	S S W	172	1·0	10·0	1·25	...	31
Mean or Sum.	29·664	59·29	54·95	67·36	52·33	123·06	47·88	...	7029	2·11	7·65	172·40	4·495	Mean or Sum.

Weather.

1. Overcast to cloudy and hazy generally. 2. Cloudy to overcast. 3. Cloudy to overcast after 10h a.m. 4. Fair till afternoon; violent thunderstorm 5h–6h p.m. 5. Cloudy to fine. 6. Generally cloudy; heavy rain late. 7. Cloudy to overcast; slight thunderstorm 3h p.m. 8. Overcast. 9. Fine to very fine. 10. Cloudy to overcast. 11. Overcast generally. 12. Cloudy generally till afternoon. 13. Fine at times. 14. Rain after 1h p.m. 15. Cloudy to fine. 16. Frequent rain. 17. Overcast till afternoon. 18. Cloudy to overcast till afternoon. 19. Overcast. 20. Cloudy; rain early. 21. Cloudy to overcast. 22. Rain 8h a.m.–8h p.m. 23. Rain at times; slight thunderstorm 11¾h a.m.–noon. 24. Overcast to cloudy. 25. Fine to cloudy. 26. Cloudy to fine. 27. Showery. 28. Cloudy to overcast in afternoon. 29. Cloudy generally to fine. 30. Cloudy in evening. 31. Overcast generally.

AUGUST, 1915.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·449	62·4	57·8	70·4	57·9	122·9	51·4	SSE	226	1·7	6·3	5·85	0·006	1
2	29·264	60·3	57·8	66·8	56·4	126·1	49·9	SSE	289	2·0	9·0	2·25	0·257	2
3	29·448	58·0	56·3	66·9	56·8	135·2	56·2	W	194	3·0	10·0	2·50	0·394	3
4	29·699	59·1	56·7	69·5	53·3	137·3	49·3	WNW	162	1·0	9·3	2·50	0·002	4
5	29·730	59·7	54·2	64·2	53·1	121·7	50·0	S	184	1·7	9·0	3·85	0·018	5
6	29·690	61·7	60·3	70·4	58·2	129·9	56·2	SSW	253	2·3	9·0	5·15	0·073	6
7	29·810	61·9	60·1	72·3	57·4	121·9	54·1	SSW	289	2·0	9·7	1·65	0·074	7
8	29·821	65·1	61·7	71·9	61·5	128·1	60·0	SW	140	1·7	9·7	2·25	...	8
9	29·801	62·8	61·0	71·3	61·5	118·9	59·8	SSW	44	1·0	10·0	0·35	0·019	9
10	29·767	65·8	62·4	75·2	60·1	130·8	57·2	S	171	1·0	8·7	3·80	0·030	10
11	29·808	64·1	58·3	71·6	57·7	131·6	52·0	SW	180	1·7	9·0	8·70	...	11
12	29·733	63·0	58·5	71·6	56·5	134·3	52·7	S	165	1·0	9·0	5·10	0·202	12
13	29·671	59·6	54·9	70·6	50·9	130·7	49·0	WSW	170	1·0	2·7	10·55	...	13
14	29·690	61·4	56·0	69·5	51·0	130·7	46·9	WSW	218	2·3	4·0	10·25	0·004	14
15	29·656	57·3	54·7	66·6	54·0	132·6	51·0	WSW	147	1·0	7·3	3·75	0·092	15
16	29·709	60·5	55·9	67·6	51·4	133·7	48·7	WNW	118	0·7	3·0	6·45	0·003	16
17	29·798	60·5	56·1	70·7	52·4	132·6	48·7	Nearly Calm	98	0·3	8·3	4·35	0·006	17
18	29·848	58·5	55·3	67·7	51·8	122·0	48·0	NNE	102	0·7	8·7	4·80	...	18
19	29·870	59·9	55·5	71·0	49·7	126·6	43·9	NNE	73	0·7	5·0	7·55	...	19
20	29·940	59·9	54·7	69·5	47·7	127·0	44·2	NNW	218	1·0	5·7	9·15	...	20
21	29·948	59·9	53·9	67·5	54·8	122·4	50·7	NW	212	1·7	8·0	6·95	...	21
22	30·076	59·7	55·5	69·2	55·3	127·3	51·0	NNW	87	1·0	6·3	4·95	...	22
23	30·082	62·0	56·8	70·9	56·0	129·9	51·2	W	107	1·0	6·0	5·25	...	23
24	30·019	60·2	55·0	70·5	56·8	131·4	50·4	NNE	75	1·0	4·0	4·80	...	24
25	29·998	63·3	57·5	72·8	50·4	130·5	44·2	N	81	1·0	4·3	10·70	...	25
26	29·929	65·3	58·8	75·9	55·2	123·3	48·4	N	139	1·0	0·3	11·30	...	26
27	29·835	60·9	56·1	69·6	49·6	124·0	44·4	NNW	88	1·3	1·0	11·40	...	27
28	29·657	60·6	56·2	69·9	48·8	120·0	43·4	NNW	145	1·0	9·7	6·40	...	28
29	29·615	51·8	50·5	60·8	49·4	87·9	44·4	N	195	2·0	6·7	0·35	0·195	29
30	29·855	55·0	49·3	63·2	43·1	122·3	37·2	NW	215	3·3	5·0	9·55	...	30
31	29·893	56·8	51·5	65·0	52·1	118·7	50·5	WNW	224	1·0	9·0	3·50	...	31
Mean or Sum.	29·778	60·55	56·43	69·37	53·90	126·20	49·84	...	5009	1·39	6·89	175·95	1·375	Mean or Sum.

Weather.

1. Fine after 3^h p.m. 2. Rainy after 11½^h a.m. 3. Rain early and in evening. 4. Overcast to fair. 5. Overcast after 11^h a.m. 6. Rainy till noon, then fair. 7. Rain midday; fine afternoon. 8. Generally cloudy. 9. Generally overcast. 10. Generally cloudy; lightning at night. 11. Fine to fair. 12. Fine forenoon; thunderstorm 0½^h–1½^h p.m.; lightning 8½^h–9½^h p.m. 13. Fine to very fine; lightning at night. 14. Fine to fair; thunder 3½^h p.m. 15. Fine after 1^h p.m.; slight thunderstorm 0½^h p.m. 16. Fine generally; thunder about 4^h p.m. 17. Fair intervals; thunder in afternoon. 18. Fair; fog early. 19. Fine; hazy. 20. Fine intervals; hazy. 21. Very fair. 22. Fair to fine. 23. Fair to fine. 24. Fair to fine; hazy evening. 25. Fine to very fair. 26. Very fine; hazy evening. 27. Very fine; hazy. 28. Fine intervals. 29. Rain 9^h a.m.–5^h p.m. 30. Very fine to fair. 31. Fine afternoon.

SEPTEMBER, 1915.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Average Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·542	54·6	51·1	63·0	48·9	123·0	41·9	S W	184	2·0	4·0	3·60	0·177	1
2	29·473	50·5	47·4	56·3	46·0	89·0	40·7	N N W	177	1·7	9·3	0·15	...	2
3	29·552	52·4	48·0	61·3	44·0	120·1	40·7	N	235	2·0	1·3	6·95	0·004	3
4	29·801	52·5	47·1	62·4	40·1	115·7	30·3	N	68	2·0	1·3	9·95	...	4
5	30·059	53·8	49·2	66·3	37·7	124·3	31·0	W	107	1·0	0·7	10·80	...	5
6	30·138	57·6	52·9	68·2	44·1	125·2	34·6	S W	93	1·3	1·7	10·70	...	6
7	30·085	61·0	54·6	71·6	45·8	124·6	37·6	S W	63	0·7	2·0	9·70	...	7
8	30·042	63·7	56·7	73·0	45·3	121·5	38·4	S S E	126	1·0	0·0	11·50	...	8
9	30·049	64·1	57·7	73·4	49·0	117·3	41·7	E	157	2·0	0·0	9·85	...	9
10	30·062	57·5	53·1	70·4	46·7	121·7	41·7	E N E	204	1·7	1·3	9·50	0·004	10
11	29·962	58·2	52·8	68·4	48·1	120·0	39·7	E N E	158	2·0	0·3	10·05	...	11
12	29·798	61·5	55·6	73·0	46·0	121·8	38·3	S E	107	1·7	0·0	9·30	...	12
13	29·710	58·9	54·7	68·5	46·8	120·5	40·6	Nearly Calm	175	0·0	7·7	3·20	...	13
14	29·753	56·7	54·4	60·3	50·2	77·3	44·2	S W	213	2·7	9·7	0·00	0·053	14
15	29·942	62·9	59·4	69·0	52·3	122·5	44·8	S W	234	1·7	4·3	4·60	...	15
16	30·104	67·7	63·9	74·0	63·8	128·9	61·7	W	177	1·0	9·3	2·50	...	16
17	30·065	67·1	61·9	75·0	60·1	132·7	53·3	W S W	123	1·3	2·0	9·45	...	17
18	29·978	63·9	59·6	76·3	53·3	129·9	45·7	Var.	175	1·0	3·3	7·60	...	18
19	30·007	57·2	53·2	65·1	51·2	127·3	44·0	E	190	1·7	5·7	6·60	...	19
20	29·970	57·2	50·9	65·6	41·6	116·0	37·7	E	187	2·7	1·7	10·60	...	20
21	29·962	57·4	50·7	68·1	43·6	119·3	37·3	E	133	1·3	5·0	9·15	...	21
22	29·912	60·9	56·5	70·4	47·4	116·2	42·3	S E	141	1·0	7·3	3·30	...	22
23	29·668	62·5	60·3	67·4	57·4	113·1	55·5	S	151	2·0	10·0	0·25	0·093	23
24	29·463	59·6	57·2	66·8	54·8	120·6	47·5	S S W	186	1·7	6·3	2·60	1·720	24
25	29·332	54·5	52·5	65·3	50·4	125·1	46·9	S W	149	1·0	4·7	6·50	...	25
26	29·201	53·7	51·9	62·9	46·6	124·0	39·3	W S W	114	1·0	8·0	3·45	0·002	26
27	29·381	50·6	48·0	55·7	47·0	92·0	41·7	N N W	146	1·7	9·3	0·10	0·012	27
28	29·375	46·7	44·3	52·4	39·4	86·3	33·6	Var.	288	1·7	10·0	0·75	0·774	28
29	29·326	42·9	39·1	51·6	39·6	103·3	31·6	N N W	258	2·7	2·7	7·55	0·083	29
30	29·564	45·2	41·1	52·3	35·9	105·6	28·9	N N W	155	2·3	3·0	6·35	...	30
Mean or Sum.	29·776	57·10	52·86	65·80	47·44	116·16	41·11	...	4874	1·59	4·40	186·60	2·922	Mean or Sum.

Weather.

1. Occasional rain till evening, then fine. 2. Generally overcast. 3. Fine to very fine. 4. Very fine generally; hazy evening. 5. Very fine. 6. Very fine. 7. Fine to very fine. 8. Very fine. 9. Very fine. 10. Very fine from 8^h a.m. 11. Very fine from 8^h a.m. 12. Very fine from 8^h a.m. 13. Fair intervals. 14. Rainy afternoon. 15. Fine to fair. 16. Cloudy to overcast. 17. Fine. 18. Very fine till afternoon, becoming overcast in evening. 19. Very fine after noon. 20. Very fine to fine. 21. Fine. 22. Fine to fair; overcast evening. 23. Rain 6^h–7^h a.m. and at times after 2^h p.m. 24. Fine intervals till 3^h p.m., then rain. 25. Fine to very fine after 10^h a.m. 26. Fine 9^h a.m.–1^h p.m. 27. Overcast till evening. 28. Rain after noon. 29. Fine to very fine after 9^h a.m. 30. Cloudy midday, otherwise fine generally.

OCTOBER, 1915.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
	Air.	Evap.	Max.	Min.										
	Inches.	°	°	°	°	°		Miles.				Inches.		
1	29·766	46·2	42·2	55·0	32·0	113·5	25·1	WNW	94	0·7	1·3	8·10	...	1
2	29·798	47·3	46·5	51·7	42·3	64·9	35·2	SE	121	0·7	10·0	0·00	0·254	2
3	30·041	50·5	48·4	58·1	48·0	102·0	40·9	ESE	64	0·7	8·0	1·50	0·041	3
4	30·093	47·3	45·6	56·4	41·0	100·2	34·6	NNE	153	1·0	6·3	1·60	...	4
5	30·031	48·5	46·2	54·4	37·8	106·1	29·9	N	175	1·7	8·7	2·40	...	5
6	30·025	51·3	49·3	58·5	47·2	113·8	43·1	NNE	75	1·3	9·0	2·05	...	6
7	29·915	51·1	48·2	56·6	42·2	98·0	35·3	ESE	215	1·3	10·0	1·20	...	7
8	29·611	51·1	47·8	57·6	45·4	104·6	38·1	SE	97	1·3	3·7	3·00	...	8
9	29·626	51·5	49·6	57·0	44·0	81·9	36·2	ENE	132	0·7	10·0	0·00	...	9
10	29·582	52·5	50·1	57·7	49·6	96·9	43·4	E	162	1·7	5·3	3·70	...	10
11	29·565	54·3	52·6	62·8	49·8	99·9	43·7	ESE	144	1·0	8·0	3·20	0·019	11
12	29·603	56·1	53·2	63·0	50·0	110·9	40·0	S	177	1·7	9·3	1·80	...	12
13	29·843	53·3	51·0	62·2	50·2	111·7	43·9	WSW	95	1·0	6·3	3·00	...	13
14	29·929	53·9	52·5	61·4	45·8	114·6	37·4	SSW	59	0·7	8·7	1·75	0·004	14
15	29·906	54·5	53·5	57·1	53·7	66·0	52·9	NNW	104	1·0	10·0	0·00	...	15
16	29·884	52·0	50·7	56·8	49·1	73·2	42·4	NE	106	1·0	10·0	0·00	...	16
17	29·964	51·7	50·3	57·0	48·5	92·0	41·7	N	56	1·0	6·7	0·30	...	17
18	30·105	47·6	47·3	53·0	45·0	68·7	38·9	Nearly Calm	65	0·7	10·0	0·35	...	18
19	30·058	46·5	44·8	53·0	39·5	104·0	40·0	NNE	138	1·3	9·7	1·10	0·004	19
20	29·889	45·1	43·6	54·6	39·4	99·9	30·5	ENE	88	1·0	6·0	3·35	...	20
21	29·810	42·9	42·4	48·0	30·9	52·7	26·3	E	117	1·0	9·7	0·00	0·036	21
22	29·904	48·3	47·0	54·6	44·7	99·0	36·3	SSE	138	1·0	9·3	3·20	...	22
23	29·761	49·9	48·1	53·9	47·3	74·6	40·7	SE	221	1·7	10·0	0·00	0·122	23
24	29·627	48·1	47·2	50·3	48·1	53·7	46·7	E	393	2·3	10·0	0·00	0·526	24
25	29·959	44·9	41·3	48·4	43·0	71·3	39·3	NNE	320	3·3	8·0	0·65	...	25
26	30·076	44·0	41·8	47·6	38·9	71·6	33·5	N	156	1·7	10·0	0·30	0·002	26
27	29·776	42·4	39·3	45·7	39·1	60·0	32·3	W	230	1·0	10·0	0·00	0·046	27
28	29·221	47·9	46·7	54·2	42·3	99·8	34·8	SSW	142	2·0	7·0	2·60	0·479	28
29	29·531	40·3	39·3	53·6	34·1	101·8	28·4	Nearly Calm	37	0·3	0·7	5·95	0·006	29
30	29·624	39·9	38·7	52·8	29·2	98·6	25·3	SSE	270	1·3	3·0	5·55	0·003	30
31	29·110	45·7	44·6	49·0	42·8	85·2	36·3	E	395	3·3	10·0	0·95	0·548	31
Mean or Sum.	29·795	48·60	46·77	54·90	43·25	90·04	37·20	...	4739	1·30	7·89	57·60	2·090	Mean or Sum.

Weather.

1. Very fine generally till 9^h p.m. 2. Light rain. 3. Fair after noon. 4. Overcast till noon. 5. Cloudy to overcast. 6. Cloudy to overcast. 7. Generally overcast. 8. Fair intervals till evening, then fine. 9. Generally overcast. 10. Fair to fine. 11. Cloudy and hazy generally. 12. Cloudy to overcast. 13. Cloudy generally to fine. 14. Fair midday; fog early. 15. Gloomy afternoon. 16. Generally overcast. 17. Overcast till afternoon; fog at night. 18. Generally overcast; foggy. 19. Overcast to cloudy; fog morning. 20. Cloudy to very fine. 21. Slight rain at times after 10^h a.m.; fog morning. 22. Cloudy generally; fair evening. 23. Rain after 3½^h p.m. 24. Rainy. 25. Overcast to fair. 26. Overcast generally. 27. Overcast. 28. Rain before 10^h a.m. and in early afternoon. 29. Fog at first, then fine to very fine. 30. Very fine generally; fog morning. 31. Rainy.

NOVEMBER, 1915.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	29·269	45·1	43·9	47·5	43·4	51·0	40·1	NE	356	5·0	8·3	0·00	0·478	1
2	29·526	41·1	38·0	47·2	36·6	92·5	31·8	N	220	3·0	3·7	5·00	...	2
3	29·578	39·7	37·5	47·3	31·9	88·8	22·8	N	219	1·0	0·0	6·00	...	3
4	29·722	43·0	40·1	49·4	34·7	101·0	26·1	NNE	218	2·0	5·0	4·25	0·006	4
5	29·826	39·5	37·8	45·4	33·9	82·0	28·7	N	189	2·0	4·0	0·65	...	5
6	29·983	38·8	38·1	47·6	34·1	82·2	25·1	N	130	1·0	6·7	0·90	...	6
7	29·837	40·7	39·8	46·6	30·9	52·2	24·5	WSW	177	1·3	6·7	0·00	0·004	7
8	29·564	47·9	46·2	53·3	40·6	97·4	34·6	WSW	396	1·3	8·0	4·20	0·004	8
9	29·005	46·0	43·9	50·9	38·3	57·9	33·0	SW	376	4·3	6·7	0·00	0·228	9
10	29·098	44·3	40·6	49·0	36·0	96·4	31·0	W	395	4·3	2·0	5·60	...	10
11	29·237	42·1	40·0	46·4	36·0	88·8	31·0	SSW	194	2·0	7·3	3·50	0·627	11
12	28·491	46·8	46·1	56·5	40·9	85·2	39·8	SE	496	1·3	9·7	0·35	0·762	12
13	29·300	38·4	34·9	49·2	35·1	90·9	26·5	W	200	4·0	5·7	3·75	0·245	13
14	29·537	34·9	33·0	43·2	30·6	92·3	22·4	W	162	1·0	1·3	6·55	...	14
15	29·594	36·0	34·1	44·4	27·5	89·8	18·6	WSW	202	1·0	3·3	4·35	0·024	15
16	29·940	35·8	33·7	43·4	31·8	84·7	23·0	NNW	130	1·3	0·3	5·90	0·023	16
17	30·090	32·9	31·1	41·8	25·0	78·2	17·1	NW	91	1·0	3·0	7·15	...	17
18	30·077	34·6	33·8	41·7	29·2	62·1	20·7	N	184	0·7	9·7	0·75	0·011	18
19	30·268	35·5	33·8	43·3	30·2	86·4	23·0	NE	190	1·7	5·7	5·05	...	19
20	30·473	38·4	36·3	43·6	32·6	88·6	22·0	ENE	143	1·3	3·7	7·20	...	20
21	30·470	36·2	34·6	38·3	32·6	44·3	23·9	NE	188	2·0	10·0	0·00	...	21
22	30·225	36·2	35·3	38·2	35·0	43·8	34·3	NE	134	1·3	10·0	0·00	...	22
23	30·124	34·6	34·1	40·4	29·3	40·6	28·8	NNW	131	1·0	9·7	0·00	...	23
24	30·196	37·0	34·5	41·2	31·2	63·0	22·1	N	157	1·3	9·3	0·70	...	24
25	29·990	33·9	32·4	40·9	27·2	74·4	19·6	W	197	1·3	2·7	3·80	0·006	25
26	29·990	32·7	30·9	40·5	27·9	74·8	18·6	N	96	1·3	0·0	6·00	...	26
27	30·113	21·8	21·8	28·5	19·8	40·0	15·2	Calm	48	0·0	9·3	0·20	...	27
28	29·793	29·5	28·7	33·9	18·5	56·0	14·4	SE	159	1·3	8·3	0·10	0·004	28
29	29·076	41·0	40·3	47·0	25·1	46·2	16·9	SE	277	2·0	10·0	0·00	0·089	29
30	29·004	42·8	41·0	48·6	38·0	92·8	30·0	S	273	2·0	4·0	2·80	0·026	30
Mean or Sum.	29·713	38·24	36·54	44·51	32·13	74·14	25·52	...	6328	1·80	5·80	84·75	2·537	Mean or Sum.

Weather.

1. Rain till 2h p.m. 2. Fine generally. 3. Cloudy to overcast 2h–3h p.m., otherwise very fine. 4. Very fine to fine till early afternoon. 5. Cloudy to overcast 10h a.m. till evening. 6. Overcast generally till evening. 7. Overcast till evening. 8. Cloudy. 9. Rain 10h a.m.–3h p.m.; very fine evening. 10. Fine generally. 11. Fine till midday; rain after 5h p.m. 12. Rainy. 13. Fine generally after 11½h a.m. 14. Fine. 15. Very fine to fine till evening. 16. Snow early, then very fine. 17. Very fine till evening. 18. Fine intervals early afternoon. 19. Fair to fine. 20. Very fine till evening. 21. Overcast. 22. Overcast. 23. Generally overcast and misty. 24. Very cloudy to overcast. 25. Overcast afternoon. 26. Very fine. 27. Foggy. 28. Fair generally; misty. 29. Overcast; rain evening. 30. Fair to fine generally.

DECEMBER, 1915.

Day.	Mean Barom. reduced to 32° F.	Mean Temperature.		Self-Registering Thermometers.				Wind.			Estimated Amount of Cloud.	Hours of Bright Sunshine.	Rain.	Day.
				Shade.		Max. in Sun.	Min. on Grass.	Direction.	Horizontal Motion.	Estimated Force.				
		Air.	Evap.	Max.	Min.									
	Inches.	°	°	°	°	°	°		Miles.				Inches.	
1	28·936	44·8	43·8	47·7	40·7	55·3	33·2	SSW	266	2·7	10·0	0·05	0·420	1
2	29·446	39·3	38·6	45·8	37·3	66·3	30·2	WNW	112	1·0	5·7	2·25	...	2
3	29·309	43·4	42·5	50·3	36·3	49·8	34·0	Var.	270	2·0	9·3	0·00	0·177	3
4	29·065	49·0	47·8	55·3	45·8	54·9	42·3	SSE	344	2·7	9·7	0·00	0·608	4
5	29·228	44·6	43·5	54·4	38·3	60·2	29·4	SE	358	1·7	9·7	0·00	0·154	5
6	28·836	47·9	44·7	51·8	44·7	93·5	39·8	WSW	448	5·7	5·3	2·35	0·150	6
7	29·157	46·5	45·3	50·1	42·6	61·9	37·9	SSW	384	2·0	9·7	0·10	0·238	7
8	29·407	42·1	39·8	48·9	34·8	87·4	25·6	WNW	120	2·3	3·0	4·65	...	8
9	29·353	42·8	41·7	53·2	30·1	52·2	22·0	SE	370	2·3	10·0	0·00	0·712	9
10	29·157	52·4	50·0	56·1	48·0	81·3	44·6	SSW	422	4·0	9·7	0·65	0·008	10
11	29·215	43·7	41·0	49·7	37·3	87·4	31·1	WSW	327	3·3	6·3	3·40	0·016	11
12	29·648	32·9	31·3	37·7	29·2	60·0	20·3	NW	261	2·0	6·3	1·35	0·042	12
13	30·143	33·8	32·1	38·9	28·2	76·6	17·9	WNW	241	2·0	1·7	5·70	...	13
14	29·814	41·6	40·2	47·5	32·4	47·0	24·9	S	420	3·0	10·0	0·00	0·142	14
15	29·270	44·9	43·5	49·3	43·8	51·8	42·8	S	285	3·3	9·3	0·10	0·657	15
16	29·292	40·1	39·3	46·3	37·4	73·2	30·2	SSE	99	1·3	5·7	2·00	0·202	16
17	29·527	33·5	33·4	39·5	29·1	47·1	23·2	E	158	0·7	9·7	0·00	0·006	17
18	29·930	39·2	38·3	41·8	32·9	60·2	32·4	NNE	200	2·3	6·7	0·30	0·005	18
19	30·217	32·3	31·4	37·7	29·4	56·3	20·6	NNE	117	0·7	9·3	0·45	0·002	19
20	30·055	36·6	35·4	40·5	29·4	65·6	24·1	W	244	1·3	7·3	2·80	0·034	20
21	29·692	44·0	42·5	47·3	38·7	47·9	36·4	W	231	2·0	7·7	0·00	0·097	21
22	29·514	47·5	46·3	50·4	41·8	61·3	34·8	SW	403	3·3	10·0	0·00	0·056	22
23	29·026	44·9	42·3	48·8	41·8	83·6	37·6	SSW	281	3·7	7·3	2·10	0·283	23
24	28·654	48·1	46·4	50·8	43·4	84·1	40·5	SSW	351	3·7	9·3	0·60	0·264	24
25	28·729	43·1	42·1	48·9	40·0	48·0	33·8	SSE	334	1·3	9·7	0·00	0·112	25
26	29·334	45·7	43·2	49·2	40·0	86·3	37·2	SW	373	3·0	5·3	4·80	0·131	26
27	29·156	50·9	47·1	54·6	43·2	79·2	41·1	SSW	763	7·3	8·7	1·80	0·266	27
28	29·595	44·4	42·7	48·7	42·5	75·2	36·4	Var.	179	1·7	5·7	1·65	...	28
29	29·385	45·5	44·3	49·0	41·9	51·7	33·4	ESE	229	1·3	6·7	0·00	0·024	29
30	29·498	46·9	45·7	49·5	41·5	55·8	33·1	S	453	1·7	10·0	0·00	0·084	30
31	29·335	48·9	46·1	53·4	46·1	80·6	43·6	SSW	595	5·0	10·0	0·60	0·113	31
Mean or Sum.	29·385	43·27	41·69	48·16	38·34	65·86	32·72	...	9638	2·59	7·90	37·70	5·003	Mean or Sum.

Weather.

1. Generally overcast; occasional rain. 2. Fine till 11^h a.m. 3. Overcast generally; rainy midday. 4. Rainy. 5. Overcast; rain evening. 6. Fine intervals; rain early. 7. Rain at times. 8. Fine generally. 9. Rainy after 11^h a.m. 10. Cloudy to overcast. 11. Cloudy to fine. 12. Snow 9½^h–10½^h a.m., then fair to fine. 13. Fine to very fine. 14. Rainy. 15. Rainy till 2^h p.m. 16. Rain in afternoon, otherwise fine generally. 17. Generally overcast; misty. 18. Gloomy morning, very fine evening. 19. Fair intervals. 20. Fair to fine till evening. 21. Rain early, fair evening. 22. Generally overcast. 23. Rain at times. 24. Showery. 25. Rainy 10^h a.m.–3^h p.m. 26. Fine till evening, rain after 8^h p.m. 27. Rain morning; gale after 11^h a.m. 28. Fine till 11^h a.m. 29. Overcast till evening. 30. Occasional rain. 31. Overcast; rain forenoon.

Indications of Schönbein's Ozonometer, observed at Noon and 9^h *p.m. of each day, during the Year* 1915.

Day.	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
	0^h	9^h	0^h	9^h	0^h	9^h	0^h	9^h	0^h	9^h	0^h	9^h	0^h	9^h	0^h	9^h	0^h	9^h	0^h	9^h	0^h	9^h	0^h	9^h
1	4	1	1	0	7	8	1	1	5	3	4	6	0	5	4	5	6	5	3	0	5	9	0	3
2	3	1	3	6	5	0	4	5	8	7	4	5	3	5	7	7	5	4	0	0	2	0	0	0
3	2	0	4	5	3	3	3	3	8	9	6	3	4	3	7	8	6	5	4	0	0	0	0	2
4	6	1	1	0	6	4	7	6	8	6	2	4	1	2	5	5	6	5	0	0	3	1	0	2
5	0	2	0	3	7	4	8	4	3	2	3	5	7	5	6	5	2	4	0	0	0	0	1	0
6	1	1	5	0	5	8	4	5	4	4	3	4	2	5	3	6	5	3	1	0	0	0	2	3
7	0	6	1	1	7	6	7	8	5	5	0	2	5	7	2	3	5	4	0	1	0	0	1	1
8	6	5	5	0	7	5	9	8	6	7	3	5	7	5	8	5	5	2	5	0	0	0	3	0
9	6	4	6	0	3	0	7	6	6	7	3	6	5	5	0	4	6	7	0	3	4	0	0	0
10	2	3	2	0	3	1	8	2	7	4	5	6	6	5	0	3	8	7	2	5	5	7	3	2
11	5	7	0	0	0	0	4	2	4	5	5	7	7	5	3	3	7	6	2	0	3	3	1	6
12	4	0	0	0	0	0	0	5	4	8	6	4	7	6	1	2	8	4	0	0	4	0	0	0
13	1	1	2	0	0	0	7	6	9	8	4	6	1	5	5	7	0	6	0	0	7	0	1	0
14	3	2	4	4	2	0	5	1	9	0	7	8	4	2	5	4	0	3	0	0	0	0	0	2
15	6	4	3	0	3	0	0	0	5	5	6	7	5	4	7	5	6	0	0	0	0	0	1	1
16	7	4	0	2	2	0	5	4	7	3	7	3	2	1	5	3	3	0	0	0	1	0	0	0
17	3	3	4	3	2	0	9	2	4	6	6	7	6	5	3	4	1	0	0	0	0	0	0	0
18	2	0	4	4	2	3	7	1	7	6	6	7	6	6	7	4	3	5	0	0	0	0	0	2
19	0	0	6	0	8	2	3	7	6	5	7	6	0	1	5	4	6	6	0	0	0	0	0	0
20	0	1	0	0	4	1	4	6	1	0	5	5	8	6	6	5	5	6	1	0	3	0	0	0
21	3	3	0	0	3	0	8	3	6	3	7	4	7	4	7	6	7	6	0	0	4	1	0	0
22	2	0	0	1	2	1	3	2	6	5	9	8	7	7	7	4	3	0	0	0	5	0	0	2
23	0	0	4	1	0	0	6	6	6	5	7	8	3	7	3	0	3	0	0	0	0	0	7	0
24	0	0	5	2	0	0	3	4	7	5	6	9	4	5	4	4	3	6	4	6	0	0	0	2
25	0	0	2	0	7	7	8	7	8	6	7	6	6	4	5	6	3	1	5	5	0	0	1	0
26	0	0	0	3	5	2	5	7	7	6	7	5	5	5	5	4	3	3	5	0	0	0	8	0
27	5	0	7	2	5	4	7	5	6	7	7	6	3	5	4	5	1	1	1	0	0	0	0	7
28	2	0	6	6	8	4	8	6	6	7	6	9	6	6	4	4	1	4	0	0	0	0	1	0
29	0	0	...	...	7	2	7	4	4	7	8	6	5	7	7	7	5	0	0	0	0	0	0	0
30	0	0	...	...	3	3	3	3	6	6	6	9	5	5	7	7	3	0	0	0	1	0	1	0
31	5	2	...	...	4	3	...	...	5	5	...	...	5	4	7	5	...	...	5	3	...	...	4	3
Means	2·5	1·6	2·7	1·5	3·9	2·3	5·3	4·3	5·9	5·2	5·4	5·9	4·6	4·7	4·8	4·6	4·2	3·4	1·2	0·7	1·6	0·7	1·1	1·2

SUMMARY OF THE WEATHER AND REMARKABLE PHENOMENA
1915.

JANUARY.

Temperature.

	°
Highest, air, on the 13th at 2^h 10^m p.m.	51·4
Lowest, air, on the 26th at 9^h 10^m a.m.	31·4
Highest, sun, on the 16th	89·6
Lowest, grass, on the 30th	22·2

*Rain on the 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 14th, 15th, 16th, 20th, 21st, 22nd, 23rd, 24th, and 31st.
Snow on the 22nd, 27th, 28th, and 29th.
Hail on the 11th.

Fog on the 26th, 29th, and 30th.
Gale on the 16th.
Solar halo on the 2nd, 4th, 6th, 9th, 10th, 11th, 12th, 15th, 19th, and 29th.
Parhelia on the 6th.
Lunar halo on the 1st and 2nd.
Lunar corona on the 1st, 2nd, 21st, and 31st.
Paraselene on the 1st.
Zodiacal light on the 4th, 5th, 7th, 9th (very bright), 11th, 16th (very bright), and 17th.

FEBRUARY.

Temperature.

	°
Highest, air, on the 3rd at 7^h 15^m p.m.	50·7
Lowest, air, on the 25th at 5^h 5^m a.m.	26·6
Highest, sun, on the 28th	101·6
Lowest, grass, on the 16th	19·3

Rain on the 1st, 2nd, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 13th, 14th, 16th, 17th, 18th, 19th, 21st, 22nd, 27th, and 28th.
Snow on the 23rd and 24th.

Hail on the 10th and 28th.
Sleet on the 8th, 13th, and 22nd.
Fog on the 11th, 12th, 20th, and 25th.
Solar halo on the 1st, 8th, 15th, 16th, 19th, 22nd, 23rd, 26th, and 27th.
Parhelia on the 1st, 3rd, and 8th.
Lunar halo on the 3rd, 20th, and 21st.
Lunar corona on the 3rd, 18th, 20th, and 28th.
Zodiacal light on the 9th (very bright), 10th, 11th, 15th, and 17th.

MARCH.

Temperature.

	°
Highest, air, on the 23rd at 4^h 50^m p.m.	55·5
Lowest, air, on the 30th at 6^h 10^m a.m.	26·4
Highest, sun, on the 11th	117·6
Lowest, grass, on the 30th	16·2

Rain on the 1st, 2nd, 3rd, 4th, 6th, 7th, 8th, 11th, 20th, 22nd, 23rd, 24th, and 25th.
Snow on the 8th, 18th, 27th, and 29th.

Hail on the 1st.
Solar halo on the 2nd, 4th, 13th, 22nd, 23rd, and 27th.
Parhelia on the 22nd and 23rd.
Sun pillar on the 28th.
Lunar halo on the 23rd and 27th.
Lunar corona on the 23rd and 26th.
Zodiacal light on the 5th, 7th, 8th, 11th, 13th, and 15th (very bright).

APRIL.

Temperature.

	°
Highest, air, on the 30th at 3^h 45^m p.m.	68·7
Lowest, air, on the 1st at 5^h 5^m a.m.	32·2
Highest, sun, on the 30th	124·9
Lowest, grass, on the 1st	24·0

Rain on the 2nd, 3rd, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 20th, 24th, and 25th.
Hail on the 7th and 8th.
Solar halo on the 2nd, 7th, and 8th.
Parhelion on the 8th.
Zodiacal light on the 7th and 8th.

* Amounts of Rainfall under $0^{in}\cdot005$ are not included in this summary.

MAY.

Temperature.

	°
Highest, air, on the 25th at $5^h\ 15^m$ p.m.	74·1
Lowest, air, on the 13th at $11^h\ 50^m$ p.m.	33·4
Highest, sun, on the 6th	130·9
Lowest, grass, on the 15th	26·0

Rain on the 2nd, 5th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 20th, 21st, and 22nd.
Snow on the 13th.

Solar halo on the 3rd, 5th, 6th, 8th, 10th, 11th, 16th, 18th, 19th, 21st, and 26th.
Parhelia on the 3rd and 8th.
Sun pillar on the 5th.
Lunar halo on the 25th and 26th.
Thunderstorm on the 21st, $3\frac{1}{2}^h$–$3\frac{1}{2}^h$ p.m. (slight).
Lightning on the 6th, after 9^h p.m.
Thunder on the 7th, $1\frac{3}{4}^h$ p.m.

JUNE.

Temperature.

	°
Highest, air, on the 8th at $2^h\ 20^m$ p.m.	80·3
Lowest, air, on the 19th at $4^h\ 20^m$ a.m.	40·3
Highest, sun, on the 7th	141·1
Lowest, grass, on the 20th	33·6

Rain on the 3rd, 23rd, 24th, 25th, 26th, 27th, 28th, and 30th.

Fog on the 4th.
Solar halo on the 2nd, 4th, 5th, 9th, 11th, 21st, and 23rd.
Sun pillar on the 16th.
Thunderstorm on the 25th, 8^h p.m.; and 30th, 2^h–$2\frac{1}{2}^h$ p.m.
Lightning and thunder on the 8th, 2^h a.m.
Distant thunder on the 30th, early afternoon.

JULY.

Temperature.

	°
Highest, air, on the 3rd at $1^h\ 20^m$ p.m.	75·0
Lowest, air, on the 15th at $4^h\ 20^m$ a.m.	47·7
Highest, sun, on the 3rd	139·0
Lowest, grass, on the 18th	39·5

Rain on the 3rd, 4th, 6th, 7th, 9th, 14th, 16th, 17th, 19th, 20th, 21st, 22nd, 23rd, 24th, 25th, 27th, 28th, and 29th.
Hail on the 4th.

Solar halo on the 4th, 6th, 13th, 14th, 21st, and 23rd.
Lunar halo on the 30th.
Lunar corona on the 30th.
Paraselene on the 30th.
Thunderstorm on the 4th, 5^h–6^h p.m. (violent); 7th, 3^h p.m. (slight); and 23rd, $11\frac{3}{4}^h$ a.m.–noon (slight).
Thunder on the 24th, $0\frac{1}{4}^h$–$1\frac{1}{2}^h$ p.m. (distant), and 27th, $1\frac{1}{2}^h$–2^h p.m.

AUGUST.

Temperature.

	°
Highest, air, on the 10th at $3^h\ 10^m$ p.m.	74·6
Lowest, air, on the 30th at $\{4^h\ 25^m$ a.m. / $4^h\ 40^m$ a.m.$\}$	43·9
Highest, sun, on the 4th	137·3
Lowest, grass, on the 30th	37·2

Rain on the 1st, 2nd, 3rd, 5th, 6th, 7th, 9th, 10th, 12th, 15th, 17th, and 29th.

Fog on the 18th.
Thunderstorm on the 12th, $0\frac{1}{4}^h$–$1\frac{1}{2}^h$ p.m.; and 15th, $0\frac{1}{2}^h$ p.m. (slight).
Lightning on the 10th, night; 12th, $8\frac{1}{4}^h$–$9\frac{1}{2}^h$ p.m.; and 13th, after $8\frac{1}{2}^h$ p.m.
Thunder on the 14th, $3\frac{1}{2}^h$ p.m.; 16th, $3\frac{3}{4}^h$ and $4\frac{1}{2}^h$ p.m.; and 17th, afternoon.

SEPTEMBER.

Temperature.

	°
Highest, air, on the 17th at 3h 5m p.m.	74·4
Lowest, air, on the 29th at 11h 25m p.m.	36·5
Highest, sun, on the 17th	132·7
Lowest, grass, on the 30th	28·9

Rain on the 1st, 14th, 23rd, 24th, 27th, 28th, and 29th.

Hail on the 3rd.
Fog on the 15th.
Solar halo on the 20th, 21st, 22nd, 26th, 29th (with contact arch), and 30th.
Parhelion on the 29th.
Lunar halo on the 20th and 21st.
Paraselene on the 20th and 21st.
Lunar bar on the 22nd.

OCTOBER.

Temperature.

	°
Highest, air, on the 12th at 1h 0m p.m.	62·6
Lowest, air, on the 30th at 7h 45m a.m.	30·3
Highest, sun, on the 14th	114·6
Lowest, grass, on the 1st	25·1

Rain on the 2nd, 3rd, 11th, 21st, 23rd, 24th, 27th, 28th, 29th, and 31st.

Fog on the 14th, 17th, 18th, 19th, 21st, 29th, and 30th.
Solar halo on the 1st, 11th, 12th, 13th, and 23rd.
Parhelion on the 31st.
Lunar halo on the 20th and 22nd.
Lunar corona on the 20th, 21st, and 22nd.

NOVEMBER.

Temperature.

	°
Highest, air, on the 12th at 1h 55m p.m.	56·2
Lowest, air, on the 27th at 10h 45m p.m.	20·1
Highest, sun, on the 4th	101·0
Lowest, grass, on the 28th	14·4

Rain on the 1st, 4th, 9th, 11th, 12th, 13th, 15th, 18th, 25th, 29th, and 30th.

Snow on the 15th and 16th.
Fog on the 6th, 7th, 8th, 12th, and 27th.
Solar halo on the 11th, 18th, 28th, and 30th.
Parhelia on the 28th.
Lunar halo on the 13th and 15th.
Lunar corona on the 13th and 19th.

DECEMBER.

Temperature.

	°
Highest, air, on the 10th at 11h 10m a.m.	55·9
Lowest, air, on the 13th at 5h 5m a.m.	28·4
Highest, sun, on the 6th	93·5
Lowest, grass, on the 13th	17·9

Rain on the 1st, 3rd, 4th, 5th, 6th, 7th, 9th, 10th, 11th, 14th, 15th, 16th, 17th, 18th, 20th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 29th, 30th, and 31st.
Snow on the 12th.

Fog on the 17th.
Gale on the 10th and 27th.
Solar halo on the 1st, 2nd, 10th, 11th, 13th, and 19th.
Parhelia on the 10th and 24th.
Sun pillar on the 11th.
Lunar halo on the 10th, 12th, 13th, 15th, 16th, and 27th.
Lunar corona on the 10th, 12th, 13th, 15th, and 16th.
Zodiacal light on the 6th.
Aurora on the 6th.

Recorded at the Radcliffe Observatory by the Anemograph, at an elevation of 114 *feet above the Ground.*

Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.
Jan. 1	SSE	477	Feb. 1	SW	284	Mar. 1	W	618	Apr. 1	W	110
2	S	384	2	SSW	602	2	WSW	292	2	SW	356
3	Var.†	220	3	S	578	3	SSW	433	3	SW	382
4	W	398	4	SSE	503	4	SW	349	4	WSW	433
5	SW	323	5	SSE	406	5	WSW	599	5	W	200
6	SSW	379	6	Var.†	339	6	W	456	6	SSW	453
7	Var.†	222	7	Var.†	341	7	NW	458	7	WSW	463
8	SW	592	8	SSW	524	8	N	467	8	WSW	552
9	W	389	9	S	463	9	N	204	9	W	541
10	SW	371	10	S	270	10	WNW	171	10	NW	273
11	WSW	507	11	SSE	137	11	Var.†	131	11	W	73
12	W	345	12	Var.†	80	12	N	127	12	Var.†	165
13	SW	371	13	SE	492	13	WNW	218	13	N	398
14	SW	480	14	WNW	486	14	NNW	188	14	N	150
15	SW	663	15	WNW	305	15	NW	208	15	WSW	131
16	W	698	16	S	239	16	NNW	160	16	W	240
17	NW	438	17	S	646	17	WNW	77	17	N	217
18	NW	351	18	S	558	18	WNW	262	18	SW	130
19	W	227	19	SW	424	19	NNW	489	19	WSW	354
20	SW	391	20	WSW	77	20	W	309	20	W	405
21	WSW	372	21	SW	184	21	SW	162	21	NW	214
22	NW	382	22	Var.†	181	22	ESE	189	22	Var.†	108
23	N	186	23	NW	268	23	S	178	23	NNE	236
24	N	233	24	NNW	367	24	ENE	53	24	NNE	149
25	NNE	106	25	W	159	25	NNE	332	25	NNE	434
26	ENE	101	26	SSW	317	26	NE	231	26	NE	427
27	ENE	271	27	SW	553	27	NE	273	27	NNE	494
28	NE	167	28	WSW	604	28	NNE	298	28	NE	388
29	NNW	103				29	NE	204	29	ENE	231
30	SW	137				30	NE	165	30	SSW	192
31	WSW	415				31	Var.†	91			
Sum ...		10699	Sum ...		10387	Sum ...		8392	Sum ...		8899

† **Jan. 3.** SE till noon; veering to NE by 3^h p.m.; NNE till 5^h p.m.; W after. **Jan. 7.** Nearly calm till noon; SW after. **Feb. 6.** SE till 3^h p.m.; backing to NW by 8^h p.m.; NW after. **Feb. 7.** NW till 5^h a.m.; backing to SE by 9^h a.m.; SE till 6^h p.m.; then veering to SW by 10^h p.m. **Feb. 12.** Light airs till 7^h p.m.; SSE after. **Feb. 22.** SSE till 5^h a.m.; then veering to N by noon; N after. **Mar. 11.** SW till $1\frac{1}{4}^h$ p.m.; backing to ESE by 2^h p.m.; ESE till 8^h p.m.; backing to NE by 9^h p.m.; NE after. **Mar. 31.** N till noon; veering to SW by 1^h p.m.; SW after. **April 12.** Light airs till 1^h p.m.; SSE till $6\frac{1}{2}^h$ p.m.; then suddenly veering to NNW; NNW after. **April 22.** SW till $1\frac{1}{4}^h$ p.m.; backing to N by $3\frac{1}{2}^h$ p.m.; N after.

Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.
May 1	SW	344	June 1	WNW	80	July 1	NNW	109	Aug. 1	SSE	270
2	N	266	2	Var.†	199	2	W	236	2	SSE	312
3	ENE	370	3	SSW	231	3	WSW	131	3	W	363
4	ENE	279	4	SW	155	4	NW	247	4	W	164
5	Var.†	91	5	SW	296	5	WNW	185	5	S	236
6	WNW	117	6	SSW	206	6	S	162	6	SW	318
7	NNE	177	7	S	110	7	SSW	431	7	SW	271
8	NNE	373	8	SSW	246	8	W	297	8	SW	289
9	NE	479	9	Var.†	127	9	NW	221	9	WSW	83
10	NNE	264	10	ENE	214	10	WSW	305	10	SW	131
11	WNW	127	11	ENE	204	11	WSW	358	11	SW	232
12	NW	279	12	ENE	128	12	WSW	336	12	SSW	181
13	NE	413	13	NE	235	13	SW	178	13	WSW	189
14	N	277	14	NE	403	14	SW	200	14	WSW	275
15	Var.†	115	15	NE	197	15	WSW	321	15	WSW	188
16	Var.†	133	16	NE	115	16	S	320	16	WSW	187
17	ENE	230	17	NE	293	17	WNW	495	17	Var.†	115
18	NNE	368	18	NE	232	18	W	208	18	NNW	116
19	Var.†	160	19	NE	183	19	SSW	360	19	N	125
20	SSE	263	20	SE	82	20	SW	425	20	NNW	155
21	ENE	152	21	NE	100	21	WSW	344	21	WNW	319
22	NNE	263	22	ENE	278	22	SSW	454	22	NW	168
23	NNE	406	23	ENE	268	23	SW	385	23	SW	116
24	NE	395	24	NE	237	24	WSW	166	24	N	106
25	NE	291	25	NE	210	25	WSW	226	25	N	95
26	NNE	388	26	SSW	279	26	SSW	225	26	N	158
27	NNE	512	27	S	189	27	S	291	27	NNW	144
28	NNE	230	28	WSW	249	28	WSW	402	28	NW	123
29	NNW	218	29	WSW	135	29	W	154	29	NW	209
30	N	216	30	WNW	137	30	W	172	30	WNW	328
31	NNW	100				31	SSW	150	31	WSW	180
Sum ...		8296	Sum ...		6018	Sum ...		8494	Sum ...		6146

† **May 5.** Nearly calm till 4^h p.m.; WSW after. **May 15.** Nearly calm till 7^h a.m.; N till 2½^h p.m.; backing to S by 3^h p.m.; S after. **May 16.** SE till 10^h a.m.; veering through 360° to SE by 3^h p.m.; SSE after. **May 19.** N till 6^h a.m.; veering to S by 3^h p.m.; S after. **June 2.** NNW till 8½^h a.m.; veering to S by 10½^h a.m.; SSW after. **June 9.** Nearly calm till 7^h a.m.; NE till 5½^h p.m.; veering to ESE by 6^h p.m.; ESE after. **Aug. 17.** Generally backing from W at 1½^h a.m. to NE by 8½^h p.m.; NE after.

Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.	Day.	General Direction.	Horiz. Motion in Miles.
Sept. 1	SW	265	Oct. 1	WNW	122	Nov. 1	NNE	529	Dec. 1	S	382
2	NNW	222	2	SSE	151	2	N	374	2	Var.†	153
3	N	281	3	SE	111	3	NNW	203	3	Var.†	293
4	N	190	4	NNE	131	4	NNE	568	4	S	411
5	WSW	115	5	N	208	5	NNE		5	Var.†	279
6	WSW	116	6	NNE	163	6	N	167	6	SSW	571
7	WSW	100	7	ESE	176	7	WSW	205	7	SSW	452
8	SE	117	8	ESE	228	8	WSW	255	8	WSW	363
9	E	188	9	E	117	9	SW	487	9	Var.†	239
10	ENE	223	10	E	238	10	WSW	550	10	SSW	610
11	ENE	252	11	ESE	153	11	Var.†	376	11	SW	433
12	ESE	182	12	S	239	12	Var.†	275	12	WNW	313
13	WSW	111	13	WSW	135	13	WNW	577	13	W	268
14	SW	284	14	SSW	100	14	W	157	14	SSW	446
15	WSW	234	15	NNE	99	15	SW	192	15	S	472
16	WSW	251	16	NNE	124	16	NNW	229	16	SSE	236
17	WSW	212	17	N	120	17	NW	112	17	Var.†	106
18	Var.†	147	18	Nearly Calm	54	18	N	145	18	N	296
19	E	241	19	N	162	19	NE	226	19	NNE	129
20	E	273	20	NE	113	20	NE	210	20	W	180
21	E	195	21	ESE	121	21	NE	212	21	W	347
22	SSE	120	22	SSE	129	22	NNE	196	22	SW	342
23	SSE	261	23	SE	244	23	N	152	23	SSW	460
24	Var.†	182	24	E	384	24	N	188	24	S	392
25	WSW	209	25	NNE	499	25	NW	186	25	S	338
26	WSW	124	26	N	291	26	NNW	228	26	SW	428
27	NW	190	27	W	153	27	Calm	35	27	SSW	882
28	Var.†	193	28	SSW	299	28	Var.†	158	28	Var.†	343
29	NNW	371	29	SW	96	29	SE	281	29	E	284
30	NW	295	30	SSE	133	30	S	351	30	SSE	371
			31	E	456				31	S	648
Sum ...		6144	Sum ...		5749	Sum ...		7824	Sum ...		11467

† **Sept. 18.** Nearly calm till $9\frac{1}{2}^h$ a.m.; ENE after. **Sept. 24.** SW till 9^h a.m.; SSE till $5\frac{1}{2}^h$ p.m.; then backing suddenly to NNW; afterwards gradually backing to SW by midnight. **Sept. 28.** Backing from NW at $1\frac{1}{2}^h$ a.m. to NNE by 8^h a.m.; NNE after. **Nov. 11.** WSW till 3^h p.m.; backing to E by 7^h p.m.; E or ENE after. **Nov. 12.** ENE till 11^h a.m.; veering to SSW by $0\frac{1}{2}^h$ p.m.; SSW till $10\frac{1}{2}^h$ p.m.; then veering to N by 11^h p.m. **Nov. 28.** Nearly calm till 5^h a.m.; NNW till 8^h a.m.; then veering to SE by $8\frac{1}{2}^h$ a.m.; SE after. **Dec. 2.** WSW till $2\frac{1}{2}^h$ p.m.; backing to ENE by $5\frac{1}{2}^h$ p.m.; ENE after. **Dec. 3.** ENE till 2^h p.m.; veering to SW by $3\frac{1}{2}^h$ p.m.; SW after. **Dec. 5.** WNW till $3\frac{1}{2}^h$ a.m.; NW till $7\frac{1}{2}^h$ a.m.; backing to SSE by 8^h a.m.; SE after. **Dec. 9.** NW till 8^h a.m.; veering to E by 9^h a.m.; E till 3^h p.m.; veering to SW by 8^h p.m.; SW after. **Dec. 17.** SSE till $4\frac{1}{4}^h$ p.m.; backing to NNE by $5\frac{1}{4}^h$ p.m.; NNE or N after. **Dec. 28.** WSW till $0\frac{1}{4}^h$ p.m.; backing to ENE by $8\frac{1}{4}^h$ p.m.; ENE after.

RADCLIFFE OBSERVATORY, OXFORD

UNDERGROUND TEMPERATURE AT OXFORD AS DETERMINED BY MEANS OF FIVE PLATINUM RESISTANCE THERMOMETERS.

November, 1898—October, 1910.

UNDERGROUND TEMPERATURE AS DETERMINED BY PLATINUM RESISTANCE THERMOMETERS.

In Vol. XLVIII of the *Radcliffe Observations* the daily readings of the temperature of the ground at various depths below the surface, by means of five platinum resistance thermometers, are given for the months of November and December, 1898, and for the whole of the year 1899. The introduction to the same volume contains a description of the apparatus employed and of the mode of reducing the observations, as well as a notice of some of the results to be derived from the observations of the year 1899.

A fuller discussion of these observations will be found in a memoir entitled "Underground Temperature at Oxford in the year 1899, as determined by five Platinum Resistance Thermometers", published in the *Philosophical Transactions of the Royal Society of London*, vol. 195, pp. 235–258.

The observations of underground temperature were continued on the same lines without interruption to the end of October, 1910, when, twelve complete years having elapsed, the series was brought to a close.

In the present volume the daily results for all five thermometers for the whole period of twelve years are set forth on pp. 130 to 201, the results for 1898 and 1899 being reprinted from the earlier volume so that all the material relating to this subject may be found in one place.

A good deal of the following discussion, especially that part of it relating to the description of the apparatus and mode of reduction, is reprinted from Vol. XLVIII with some additions so as to include our later experience and such alterations as were required to adapt it to the longer series of observations which have now to be considered.

Description of the Apparatus and Method of Reducing the Observations of Earth Temperatures.

The instruments with which the earth-temperatures given in this volume were observed are five platinum resistance thermometers of the Callendar and Griffiths pattern,* made by the Cambridge Scientific Instrument Company. These were purchased in 1896 by the late Mr. Stone (then Radcliffe Observer) and four of them were placed in position under his direction before his death.

* See the Cambridge Scientific Instrument Company's "Descriptive List of Instruments" (May, 1896), p. 20.

The method of platinum thermometry seemed to be particularly suitable for this class of work, on account of the immunity it enjoys from certain errors attending the use of the long-stemmed spirit thermometers ordinarily employed for underground temperatures. A higher degree of accuracy might, therefore, reasonably be expected, and the results of the observations at the Radcliffe Observatory extending over twelve years, published in this volume, show, I think, that this anticipation has been justified. Difficulties, it is true, have arisen through the occasional breaking down of the electrical connexions, but these were almost exclusively confined to the earlier years, and in the light of our experience might, I think, be easily avoided in a fresh installation.

The thermometers are inserted in undisturbed gravel, the first four lying one under the other, in a vertical plane beneath the grass of the south lawn, and within a few feet of the Stevenson screen in which the dry and wet bulb, and the maximum and minimum, thermometers are suspended.

In order that the thermometers might lie in practically unbroken ground, the following method of placing them was adopted. A pit was dug at the edge of the grass about 5 feet long by 4 feet wide. One edge of the pit coincided with the edge of the grass plot, and the corresponding side of the pit was made as nearly vertical as possible. Into this vertical face four strong iron tubes were driven horizontally, the tubes being formed with spikes at their ends to facilitate this operation. The tubes are 4 feet long, and into them the thermometers were inserted with the leads attached, the mouths of the tubes were sealed up with tow and red lead, and the pit filled in.

The first four thermometers were placed at depths of (approximately) 6 inches, 1 foot 6 inches, 3 feet 6 inches, and 6 feet respectively; but Mr. Stone soon saw the advisability of placing another at a lower level, and intended to have gone to a depth of 20 feet. But as water was met with at a depth of 10 feet 6 inches, he decided to place it just above the water-level, at a depth of 10 feet.

This thermometer was buried, not directly under the four earlier ones, but in a separate pit at the other side of the Stevenson screen. This was apparently done to avoid disturbing the leads of the thermometers which were already in position, but it would, perhaps, have been rather more satisfactory if all had been placed in the same vertical plane.

It is also, perhaps, to be regretted that one or two similar thermometers were not buried at considerably greater depths. The presence of water, however, complicated matters and introduced conditions different from those which prevailed in the dry gravel above. It is not, for example, to be supposed that the thermal conductivity or diffusivity of permanently water-logged gravel would be the same as those of the drier material above it. Hence it would appear necessary to put at least two thermometers below the permanent water-level in order to study the flow of heat under such circumstances. Besides, it is highly probable that the gravel stratum is not very much thicker than 10 feet. Excavations in the neighbourhood show that the blue Oxford clay is likely to be met with at any

depth below 12 feet from the surface, and in this, of course, the thermal conditions would in all probability be wholly different from those in the gravel.

The actual depths of the various thermometers as measured in October, 1898 (when the pits were standing open to enable us to re-standardize the thermometers), were as follows:—

Thermometer	I.	II.	III.	IV.	V.
Depth ...	6½ in.	1 ft. 6 in.	3 ft. 6½ in.	5 ft. 8½ in.	9 ft. 11½ in.

On my appointment to the post of Radcliffe Observer, I took an early opportunity of examining the apparatus, and proceeded to determine the comparative values of the coils of the resistance-box, and to re-standardize a spare thermometer in a sealed glass tube (referred to as Thermometer A) which was kept in the observing room for general purposes.

This examination led to the discovery of discrepancies in the readings of the apparatus which necessitated a large number of experiments, extending at intervals over the greater part of a year, before they were traced to their sources and eliminated.

In this part of the work I have to acknowledge the very generous help and advice of Mr. E. H. Griffiths, F.R.S. (now Dr. Griffiths, Principal of University College, Cardiff) who was kind enough to come to Oxford on more than one occasion to place his experience at our disposal, and who, at one stage of the investigation, took the resistance-box and spare thermometer to Cambridge to subject them to a prolonged examination in his own laboratory.

These discrepancies, though serious in view of the accuracy which we had reason to expect from the apparatus, were still small quantities confined within one or two tenths of a centigrade degree. They were, for the most part, traced eventually to uncertainties in the contacts at the switchboard, to looseness in a screw in the resistance-box, and a want of perfect insulation in the older leads. These leads consisted of four india-rubber covered wires, which, in the underground portion, passed through leaden pipes, but within the observing room were without the leaden covering. It was found that these were very susceptible to damp, and that the insulation fell away very rapidly when there was much moisture in the air, thus giving rise to very puzzling and troublesome changes.

In September, 1898, the switchboard was improved and new composition cable leads substituted, which extended without interruption from the thermometers right up to the switchboard.

Since these changes were effected no discrepancies have appeared which could be traced to those leads, but on one or two occasions when the short flexible lead from the switchboard to the resistance-box was found to be thoroughly damp some irregularities in the thermometer-readings occurred. The first occasion on which this was noticed was October 27, 1899. On lighting a fire in the observing room, however, to dry the covering of this lead the irregularities wholly disappeared, and from this date onwards a gas-jet was

left burning night and day during the winter months, which was found to keep the air of the room sufficiently dry to prevent the deposition of moisture on this lead.

In another way, however, this flexible lead caused frequent trouble and continued to the very end to be a source of anxiety. The four flexible wires which go to make up this lead were soldered at one end to four separate tangs of copper which made contact with four screw-terminals on the resistance-box. At the other end they were soldered each to one of four stiff tinned wires which made contact at the switchboard with the four leads to the thermometer by immersion in mercury-cups. As the observations proceeded it was found that the bending of these wires in daily use led to the "crippling" or breaking of some of the fine strands of which they are composed and so caused, of course, an alteration of the resistance in these parts of the circuit. This occurred chiefly close to the soldered extremities where they were attached to the four-pronged contact-maker or to the copper tangs. As soon as this was discovered arrangements were made for short-circuiting the leads to the thermometers and the compensating leads, and from September 3, 1901, to March 31, 1910, the zero of leads was determined every day and thus any danger of error arising from this cause was wholly eliminated. For the most part the change in the zero from day to day was very slight and would not have affected the resulting temperatures by 0°·01 C. From April 1, 1910, the daily determination of the zero of leads was discontinued, but observations for this purpose were made at intervals of somewhat irregular length, averaging about ten days, until the series of observations of temperature was brought to a close on October 31 of the same year.

Trouble having arisen towards the end of 1900 with the switchboard described above, a new form of switchboard was designed by the Cambridge Scientific Instrument Company. In this instrument the four leads from any particular thermometer are soldered to four stout copper blocks attached to a board. The flexible leads from the resistance-box are brought to a wedge-shaped piece of hard-wood with copper shoes and this is forced down between the bevelled ends of the two pairs of copper pieces by means of a screw which passes through the hard-wood block and screws into the switchboard below. Electrical connexion is thus made between the four copper shoes to which the flexible leads are attached and the four copper blocks to which the thermometer leads are soldered.

The advantages of this method of making contact are that the pressure at the contact surfaces is practically equal at all four places, that this pressure is considerable, and that the contact surfaces are very easy to keep clean. At a later date, in order to protect the flexible leads from injury near their soldered ends, a piece of wood in the form of an arch was attached to the hard-wood block, forming with the latter a kind of stirrup up the sides of which the four leads were taken each in a separate groove. Where they emerged from the stirrup they were firmly bound together and the lead as a whole was suspended from a point about three feet above the middle of the switchboard, so that only

a very slight bending of the leads was necessary in transferring the contact-maker from one set of thermometer leads to those of any other.

The new switchboard was put up on May 17, 1901, and the improved contact-maker on November 23 of the same year, and both were found to work satisfactorily to the end.

The resistance-box in its general design is similar to that described by Dr. Griffiths,* but simplified to suit the particular class of work for which it was intended.

It is provided with three principal coils, A, B, C, whose nominal values are 20, 40, and 80 box units respectively, a box unit being about 0·01 ohm. There are two additional coils, one for the calibration of the bridge wire, and another, which we have called the "concealed coil", whose value is about 240 box units, which was inserted for convenience to balance approximately the resistance of a thermometer at 0° C. when the coil A was also in the circuit, so that the reading of the bridge wire under these circumstances might be as nearly zero as possible.

On account of the differential character of the equation (*a*), (p. 111), the value of this coil does not concern us except in computing the correction for the temperature of the box, and then an approximate value only is required.

The apparatus is provided with a slow-motion contact-maker of Mr. Horace Darwin's pattern,* and Griffiths' thermo-electric key.†

The galvanometer-microscope is placed on a window-ledge to the right of the resistance-box, in such a position that the observer can manipulate the commutator for reversing the direction of the current without removing his eye from the eye-piece of the microscope.

The general arrangement of the apparatus as it appeared in 1899 is shown in Plate 1, and no change has been made later except in the switchboard and flexible lead. To the right is the galvanometer-microscope; underneath in front is the commutator, and behind it the contact key. On the extreme left is the switchboard, as at first constructed, and in the corner of the room is a small electric motor for stirring the oil in which the resistance coils are immersed. The bridge wire and contact-maker are seen in front of the copper box containing the coils.

In standardizing the apparatus the method described by Dr. Griffiths in *Nature* of November 14, 1895, was in the main followed. The temperature coefficient was determined by Dr. Griffiths when the apparatus was under examination in his laboratory at Cambridge. Two separate determinations made in 1898 gave the following results:—

Date	Range of Temp.	Temp. Coeff.
1898 July 27	9°·18	0·000242
,, August 8	12·51	0·000240

* *Nature*, November 14, 1895.

† *Phil. Trans.*, A, vol. 184 (1893), pp. 397–8.

In the reduction of the observations the value 0·00024 has been adopted. The accuracy of this value has been borne out by subsequent observations in several different ways. Thus, for example, the invariable steadiness in the changes of No. V, whatever might be the temperature of the box, indicated a high degree of precision in the adopted value of this constant.

For the determination of the coil values and the value of a unit of the bridge wire scale, the following observations were made at the Radcliffe Observatory:—

	C − B − A =	B − A =	A =
	20·051	19·851	19·603
	20·046	19·849	19·600
	20·043	19·848	19·601
	.....	19·853	19·602
	.....	19·847	.....
Means	20·047	19·850	19·601

From these we obtain, as in Dr. Griffiths' paper referred to above,

$$\left.\begin{aligned} C &= 80{\cdot}158 \\ B &= 39{\cdot}979 \\ A &= 19{\cdot}863 \end{aligned}\right\} \text{ mean box units,}$$

and one scale division of the bridge wire is equal to 1·0134 mean box units.

We thus get the following table giving the correction for the particular arrangement of coils in use, in which the corrections have each been diminished by 20 simply for the convenience of having the nominal readings of the box approximately equal to the temperature of the thermometers:—

TABLE I.—*Correction for Coils.*

Plugs in	Correction.	Coils in Circuit.
A, B, C	− 20·000	None
B, C	− 0·137	A
A, C	+ 19·979	B
C	+ 39·842	A, B
A, B	+ 60·158	C
B	+ 80·021	A, C
A	+ 100·137	B, C
None	+ 120·000	A, B, C

The correction to the bridge wire scale is also taken from the following table, the correction being always of the same sign as the reading of the scale:—

TABLE II.—*Bridge Wire Table.*

R	Corr.	R	Corr.	R	Corr.
0	0·000	6	0·080	12	0·161
1	·013	7	·094	13	·174
2	·027	8	·107	14	·188
3	·040	9	·121	15	·201
4	·054	10	·134	16	·214
5	·067	11	·147	17	·228
6	·080	12	·161	18	·241

We have next to consider the correction for the temperature of the coils and bridge wire. This temperature is read from a mercury thermometer which stands in the oil in which the coils are immersed, its stem protruding through the marble slab which forms the top of the box. The oil in the box was stirred before each series of readings by means of the small electric motor. When the observations were prolonged for any considerable time, as in the process of standardizing, the oil was stirred at frequent intervals.

All observations have been reduced to a standard temperature of 14°C., as being about the mean temperature of the observing room throughout the year.

If R_θ denotes the observed resistance at any temperature θ, and R_{14} the corresponding resistance for a temperature of 14°C., they are connected by the relation,

$$R_{14} = R_\theta \{1 + k(\theta - 14°)\},$$

or adopting the temperature coefficient, 0·00024,

$$R_{14} - R_\theta = R_\theta \times 0{\cdot}00024 \times (\theta - 14°).$$

In this expression R_θ is the total resistance in the circuit, and since this includes the resistance of the "concealed coil" we require to know approximately the value of that coil on the right-hand side of the equation. This is, perhaps, most easily determined from the observations of the thermometers themselves at 100°C. and 0°C., combined with the constant value found by Dr. Griffiths for the ratio of the corresponding resistances R_1 and R_0.

If X be the value of this coil, r_0 that of the other coils in use and the bridge wire when the thermometer is packed in melting ice, and r_1 that of the coils and bridge wire when the thermometer is immersed in steam, reduced to mean box units at 14°C., then the total resistances in the two cases are $X + r_1$ and

$X + r_0$, and if we take the ratio of these resistances to be 1·3872* as found by Dr. Griffiths for the wire used in the construction of this instrument, then

$$\frac{X + r_1}{X + r_0} = 1{\cdot}3872, \text{ and therefore } X = \frac{r_1 - 1{\cdot}3872\, r_0}{0{\cdot}3872}.$$

The values of X found in this way from observations made on October 4, 5, and 6, 1898, for the purpose of standardizing the thermometers, are as follows:—

Thermometer	X.
I.	240·65
II.	·65
III.	·77
IV.	·77
V.	·60
A.	·65
Mean ...	240·68

For any arrangement of coils (Y) and any bridge wire reading (R) we have, therefore, as the total resistance in the circuit, $X + Y + R$, and the coefficient of $(\theta - 14°)$ in the correction for temperature is $(X + Y + R) \times 0{\cdot}00024$.

We thus find the following table for the two different arrangements of coils which have been used in the observations:—

TABLE III.—*Coefficient of* $(\theta - 14°)$.

Plugs in	B+C	A+C	Plugs in	B+C	A+C	Plugs in	B+C	A+C
Bridge Wire Reading.			Bridge Wire Reading.			Bridge Wire Reading.		
— 18	0·0581	0·0629	— 6	0·0610	0·0658	+ 6	0·0638	0·0686
17	83	31	5	12	60	7	41	89
16	86	34	4	14	62	8	43	91
15	88	36	3	17	65	9	46	94
14	90	38	2	19	67	10	48	96
13	93	41	— 1	22	70	11	50	·0698
12	95	43	0	24	72	12	53	·0701
11	·0598	46	+ 1	26	74	13	55	·03
10	·0600	48	2	29	77	14	58	·06
9	02	50	3	31	79	15	60	·08
8	05	53	4	34	82	16	62	·10
7	07	55	5	36	84	17	65	·13
— 6	·0610	·0658	+ 6	·0638	·0686	+ 18	·0667	·0715

* *Nature*, November 14, 1895, p. 45.

The temperature on the platinum scale corresponding to a resistance, R, is deduced from Callendar's formula,

$$pt = 100\,(R - R_0)/(R_1 - R_0)\,* \quad . \quad . \quad . \quad . \quad . \quad . \quad (a)$$

where R_1 is the resistance at 100°C., and R_0 the resistance at 0°C., each of them being reduced to mean box units at the standard temperature (14°).

From a very careful series of observations made at the Radcliffe Observatory on October 4 and 6, 1898, the following mean values of the zero-points were obtained:—

Zero-points of the Thermometers.

Thermometer.	R_0
No. I.	0·31
„ II.	0·43
„ III.	0·49
„ IV.	0·33
„ V.	0·24

The temperature of steam was observed on October 4 and 5, with the following results for the several thermometers:—

Readings for the Temperature of Steam.

Thermometer.	R_1
No. I.	101·29
„ II.	101·47
„ III.	101·60
„ IV.	101·38
„ V.	101·18

On substituting the values found above for R_0 and R_1 in formula (*a*) we obtain the following expressions for the separate thermometers, giving the temperature on the platinum scale corresponding to any reading R:—

Thermometer I. $pt = (R - 0{\cdot}31)/1{\cdot}0098 = R - (0{\cdot}0097\,R + 0{\cdot}31)$.
„ II. $pt = (R - 0{\cdot}43)/1{\cdot}0104 = R - (0{\cdot}0103\,R + 0{\cdot}43)$.
„ III. $pt = (R - 0{\cdot}49)/1{\cdot}0111 = R - (0{\cdot}0110\,R + 0{\cdot}48)$.
„ IV. $pt = (R - 0{\cdot}33)/1{\cdot}0105 = R - (0{\cdot}0104\,R + 0{\cdot}33)$.
„ V. $pt = (R - 0{\cdot}24)/1{\cdot}0094 = R - (0{\cdot}0093\,R + 0{\cdot}24)$.

The expressions in brackets on the right-hand side are the corrections which must be applied to R to obtain the temperature on the platinum scale. They may be tabulated in a very simple form for each thermometer, so that the platinum temperature can be at once deduced from the reading of the resistance.

* *Phil. Trans.*, A, vol. 178, p. 195.

TABLE IV.—*Reduction to Platinum Scale.*

Thermometer	I.	II.	III.	IV.	V.
R					
−10	−0·21	−0·33	−0·37	−0·23	−0·15
0	−0·31	−0·43	−0·48	−0·33	−0·24
+10	−0·41	−0·53	−0·59	−0·43	−0·33
+20	−0·50	−0·64	−0·70	−0·54	−0·43
+30	−0·60	−0·74	−0·81	−0·64	−0·52

A complete determination of the temperature on the platinum scale by means of one of the resistance thermometers is, therefore, reduced to the following simple steps:—

(1) The balancing of the galvanometer and reading of the bridge wire scale (R) and of the temperature (θ) of the box.

(2) To R is to be added the correction for the particular arrangement of coils in use, from Table I.

(3) The correction to reduce the bridge wire reading to mean box units from Table II.

(4) The reduction to standard temperature (14°). The quantity taken from Table III multiplied by $(\theta - 14)$ gives this.

(5) The correction from Table IV.

It only remains to reduce the temperature thus expressed from the platinum to the air scale.

The relation connecting these two, established by Professor Callendar,* is—

$$d = t - pt = \delta\left\{\left(\frac{t}{100}\right)^2 - \frac{t}{100}\right\}. \quad \ldots\ldots\ldots \quad (b)$$

in which pt is the platinum temperature, t the temperature on the air scale, and δ a constant. The value of δ for the wire used in the Oxford instrument was determined at Cambridge to be 1·512.† Writing $pt + d$ for t in equation (b), and remarking that, since $d/100$ is less than 0·003 within the limits of temperature with which we have to deal, its square may be neglected, we find—

$$d = \delta\,(\tau^2 - \tau)/\{1 + (1 - 2\tau)\,\delta/100\},$$

τ being written for $pt/100$.

We thus obtain the following table for the correction from the platinum to the air scale, for every degree of the former from −15° to +25°.

* *Phil. Trans.*, A, vol. 178, p. 163.

† Cf. the Report of the Committee of the British Association for improving the Construction of Practical Standards for use in Electrical Measurements. Bradford, 1900.

TABLE V.—*Reduction from the Platinum to the Air Scale.*

pt	Corr. to Air.	*pt*	Corr. to Air.	*pt*	Corr. to Air.	*pt*	Corr. to Air.
°	°	°	°	°	°	°	°
−15	+0·256	−5	+0·078	+5	−0·071	+15	−0·191
14	·237	4	·062	6	·084	16	·201
13	·218	3	·046	7	·097	17	·211
12	·199	2	·030	8	·110	18	·221
11	·181	−1	+·015	9	·122	19	·231
10	·163	0	·000	10	·134	20	·240
9	·146	+1	−·015	11	·146	21	·249
8	·128	2	·029	12	·158	22	·257
7	·111	3	·043	13	·169	23	·266
6	·095	4	·057	14	·180	24	·274
−5	+·078	+5	−·071	+15	−·191	+25	−·281

The reduction of the observations is thus of a sufficiently easy character; but it may be still further simplified, and the chance of arithmetical errors occurring in individual cases greatly diminished, if not wholly removed, by the preparation of a table for each thermometer giving the total correction to the bridge wire reading for each arrangement of coils, the arguments in each case being the bridge wire reading (R) and the temperature of the box (θ). Of course if a great variety of coils were in use, such tables would attain dimensions out of proportion to their usefulness, as it would be necessary to construct a table for each separate combination of coils. But in observations of underground temperature, the range of the readings of any particular thermometer is comparatively limited, so that only two different arrangements of the plugs are necessary, coil A serving for about eight months of the year, and coil B coming into use for about four months in summer.

It was thus a simple matter to compute tables that would cover all cases, and tables of this sort were prepared for each of the earth thermometers, from which the correction to the bridge wire reading, to reduce to the corresponding temperature on the air scale, was obtained at one step by an easy interpolation.

From the time when the pits were filled, in October, 1898, the thermometers, with one exception, remained undisturbed until the close of the observations in November, 1910, and the readings of resistance were reduced to temperatures on the air scale by means of the same tables throughout the whole period. The single exception was Thermometer No. I, which was dug up and its zero-point determined on October 6, 1899. The zero-point found on this occasion agreed within 0°·004 C. with the corresponding value determined a year previously. On February 7, 1901, advantage was taken of a heavy snowfall to test again the zero-point of this thermometer. The value found on this occasion for R_0 was 0·33 as compared with 0·31 in 1898.

All five thermometers were exhumed in November, 1910, and on the 1st, 2nd, 3rd, and 9th of that month a careful series of observations, similar in every respect to those of October 4, 5, and 6, 1898, was made, from which the following mean values of the zero-points and boiling-points were obtained:—

Thermometer.	*Reading at Temperature of Melting Ice.*	*Reading at Temperature of Steam.*
	R_0	R_1
No. I.	0·36	101·32
,, II.	0·51	101·53
,, III.	0·57	101·61
,, IV.	0·40	101·42
,, V.	0·32	101·21

Comparing these values with those obtained in 1898, as given on p. 111, it will be seen that the zero-points of all five thermometers have increased by amounts varying from 0·05 to 0·08, while the fundamental interval, $R_1 - R_0$, has in all cases diminished by amounts varying from 0·02 to 0·07. These changes in the fundamental intervals will, within the range of our observations, have very little effect on the deduced temperatures, and will not affect the result by 0°·02 C. even in the case of the highest summer temperatures recorded by us. They may accordingly be neglected. It is not so, however, with the changes in R_0, which from the form of equation (*a*) will be seen to affect the resulting temperatures by practically their whole amount.

It thus appears that in addition to the reduction taken from the tables, which are based on the standardization of 1898 and which have been applied day by day to the observations, it becomes necessary to apply the following corrections to the temperature readings of the five thermometers in the year 1910.

Corrections for the Year 1910.

Thermometer.	Correction.	
	°	°
No. I.	− 0·05 C.	or − 0·09 F.
,, II.	− 0·08 ,,	,, − 0·14 ,,
,, III.	− 0·08 ,,	,, − 0·15 ,,
,, IV.	− 0·07 ,,	,, − 0·13 ,,
,, V.	− 0·08 ,,	,, − 0·14 ,,

These are the corrections for the year 1910 as determined from the observations of the thermometers in melting ice and steam made in November of that year. But we have next to consider what corrections may be necessary for the intermediate years 1899–1909, and we have to ask ourselves whether this small change in the positions of the zero-points has taken place suddenly, or whether it should be regarded as a slow time-change taking place gradually over the whole period.

With the exception of No. I the thermometers were left undisturbed during the whole series of observations, and there is no record of a sudden change in the apparatus such as could give rise to anything in the nature of an abrupt alteration in the fundamental points. From a discussion of the whole series of observations it has appeared best, therefore, to regard this shift in the zeros as a progressive change and to apply corrections for it approximately proportional to the time elapsed.

It is assumed that the tables computed in 1899 (from the observations of October 1898) apply without correction to the year 1899, a conclusion which is to some extent borne out by the close agreement of the zero-points found for No. I in October, 1898, and October, 1899. For subsequent years the corrections to be applied are taken from the following table:—

TABLE VI.—*Corrections for Change of Zero in Fahrenheit Degrees.*

Thermometer	I.	II.	III.	IV.	V.
Year.	°	°	°	°	°
1900	−0·01	−0·01	−0·02	−0·01	−0·01
1901	·02	·03	·03	·02	·03
1902	·02	·04	·05	·04	·04
1903	·03	·05	·06	·05	·05
1904	·04	·07	·08	·06	·07
1905	·05	·08	·09	·07	·08
1906	·06	·09	·11	·08	·09
1907	·06	·10	·12	·10	·10
1908	·07	·12	·14	·11	·12
1909	·08	·13	·15	·12	·13
1910	−0·09	−0·14	−0·15	−0·13	−0·14

The daily readings of all the thermometers as given on pp. 130–201, and the means for the calendar months which appear at the foot of each column, are taken direct from the pages of our ledgers, and represent the results computed by the aid of the tables of 1899. To obtain the true results the corrections given in Table VI for each year have still to be applied.

Observations were made every day, except on one or two occasions when they were rendered impossible owing to defects in the flexible leads or in the connexions of the earlier switchboard and contact piece, the time of observation being always within a short time of noon. The readings were for the most part taken by the late Mr. McClellan and after his death in 1907 by his successor Mr. Barrett, but during their vacations, on Sundays, and occasionally at other times, Mr. Wickham and Mr. Robinson took a share of the work. Mr. Balk also took a considerable proportion of the observations and helped largely in the computations. The observations were thus made in all cases by careful observers of skill and experience, and the results seem to show that they are of a remarkable degree of precision.

Some interruptions which occurred in the regular routine seem to require a word of explanation. On October 27, 1899, as already mentioned, suspicion was directed to the state of the flexible lead from the resistance-box to the switchboard, which was found to be affected by the dampness of the air in the observing room. This was indicated by a sudden change of about 0°·13 F. in the reading of the 10-foot thermometer, which, under ordinary circumstances, changes so slowly and steadily that its reading on any day might be predicted with certainty to within one-twentieth of a degree from the readings of two or three days immediately preceding. On drying the lead, however, the abnormal readings disappeared by the next day, and the subsequent indications of this thermometer were found to lie along the same curve as before the discrepancy had arisen.

As the dampness of the lead disturbed only the reading of the resistance-box and in no way affected the thermometer leads or the thermometers themselves, we were, therefore, able to take an interpolated value for the reading of No. V as a standard of comparison, and the difference between this and the actually observed reading, viz. 0°·13, was added as a correction to all the observations made on that day.

This particular case illustrates very well the protection which the readings of a deep-sunk thermometer afford against sudden changes occurring unobserved in the apparatus.

In the year 1901, also, some irregularities having been noticed in the readings of No. V between July 7 and July 12, it was discovered on July 13 that one of the leads from this thermometer was insecurely soldered to the switchboard. When the defect had been repaired it was found that the observed temperature was about 1° less than before and the subsequent daily readings of the instrument resumed their regular variation. The actual readings, therefore, obtained in the interval July 7 to July 12, while the connexions were in a defective state, were discarded, and values were interpolated which cannot be in error by more than one or two hundredths of a degree (F.). These interpolated results are printed in italics on p. 146.

Opportunity was taken, when this repair was in hand, to have the leads of all the other thermometers re-soldered, and no further trouble from this cause was found to arise.

On October 11 of the same year the soldered connexions of the contact-piece attached to the flexible leads were found to be defective and no readings were possible. The results printed in italics on p. 147 for that date are obtained by interpolation from those of a few days before and after. The defect was set right in time for the observations of the following day.

On Sunday, September 28, 1902, the observations were accidentally omitted and the results for that day, given on p. 153, were interpolated from those of the 27th and 29th.

Reference has already been made to the fact that the gravel had been found water-logged at a depth of 10 ft. 6 in. and that Thermometer No. V was in consequence placed at a depth of only 10 feet, instead of 20 feet as had been

at first intended. When filling in the pit an earthenware drain-pipe, open at both ends, was placed in a vertical position, its lower end at the same level as, and close beside, the horizontal iron pipe in which this thermometer is enclosed, and its upper end protruding three or four inches above the surface of the gravel path. To keep out dust and gravel the aperture was closed with a stopper, or lid, which was removable for inspection. Measures made in November, 1915, show that the bottom of this shaft is still sensibly at the same depth as the thermometer.

In ordinary circumstances the bottom of this shaft was quite dry, but on several occasions when extensive floods prevailed in the neighbourhood some water was found to rise in the pipe. Omitting some half-dozen occasions on which only "slight traces" of water were reported, the following notes include all references to the rise of water in the shaft.

The height of water was estimated by lowering a long pole of approximately cylindrical form to the bottom of the shaft and measuring the length of the portion of the pole which was found to be wet on subsequent withdrawal. Allowance was made for the rise of the water due to the displacement of the pole, so that the figures in the following tables represent the height of the water in its undisturbed state.

Water was first reported in the 10-foot shaft from June 16 till July 15, 1903. The height of the surface of the water above the level of Thermometer No. V was, to the nearest quarter of an inch, as follows:—

	in.		in.		in.		in.		in.		in.
June 16	2¼	June 21	6¾	June 26	6¼	July 1	4¼	July 6	2¼	July 11	1
„ 17	6¼	„ 22	6¾	„ 27	6	„ 2	4¼	„ 7	2¼	„ 12	...
„ 18	6½	„ 23	6½	„ 28	5½	„ 3	3¾	„ 8	1¾	„ 13	¾
„ 19	6½	„ 24	6½	„ 29	5¼	„ 4	3½	„ 9	1½	„ 14	¼
„ 20	7	„ 25	6¼	„ 30	4¾	„ 5	3¼	„ 10	1	„ 15	¼

On July 29th ¼ inch of water was found in the 10-foot shaft.

Water was again reported in this shaft from October 26 to December 8, 1903, as follows:—

	in.		in.		in.		in.		in.		in.
Oct. 26	3	Nov. 3	9¼	Nov. 10	7½	Nov. 18	4¾	Nov. 25	2¼	Dec. 3	¼
„ 27	3¼	„ 4	9	„ 11	6¾	„ 19	4¼	„ 26	1¾	„ 4	¾
„ 28	4½	„ 5	8¾	„ 12	6¾	„ 20	3¾	„ 27	2	„ 5	½
„ 29	5¾	„ 6	8½	„ 13	6¾	„ 21	3½	„ 28	2¾	„ 6	...
„ 30	7¼	„ 7	8½	„ 14	6½	„ 22	...	„ 29	...	„ 7	½
„ 31	8¼	„ 8	8	„ 15	6¼	„ 23	2¾	„ 30	1½	„ 8	¼
Nov. 1	8¾	„ 9	8	„ 16	5¼	„ 24	2½	Dec. 1	1¼		
„ 2	9¼			„ 17	5			„ 2	¾		

Water was also found in the shaft from February 3 to March 26, 1904, the depths being as follows:—

	in.		in.		in.		in.		in.		in.
Feb. 3	2	Feb. 12	8	Feb. 21	...	Mar. 1	6½	Mar. 10	3½	Mar. 19	1¾
„ 4	2¼	„ 13	9¼	„ 22	9	„ 2	6	„ 11	3¼	„ 20	1½
„ 5	3	„ 14	9¾	„ 23	8½	„ 3	5½	„ 12	3	„ 21	...
„ 6	4	„ 15	10	„ 24	8	„ 4	5¼	„ 13	...	„ 22	1
„ 7	4¼	„ 16	10¼	„ 25	7¾	„ 5	5	„ 14	3	„ 23	¾
„ 8	5½	„ 17	10½	„ 26	7½	„ 6	5	„ 15	2½	„ 24	½
„ 9	6¼	„ 18	10¼	„ 27	6¾	„ 7	4¾	„ 16	2¼	„ 25	½
„ 10	6½	„ 19	9½	„ 28	...	„ 8	4½	„ 17	2	„ 26	½
„ 11	7	„ 20	9¼	„ 29	6¾	„ 9	4	„ 18	1¾		

On May 27, 1904, 2¾ inches of water was reported and on August 2 of the same year some "liquid mud." Half an inch was found on October 20, 1907, and a quarter of an inch on December 12 following, which is the last date on which any measurable amount was recorded.

These entries may serve to account for some anomalous movements in the 10-foot thermometer which might otherwise be inexplicable. Thus, for instance, during the second week of June, 1903, this thermometer was rising steadily as one would expect, in accordance with the usual annual variation, at the rate of about 0°·08 per day. Between June 14 and 15, however, it suddenly rose by 0°·69 and between the observations of the 15th and 16th by 0°·97, after which it fell off steadily until about June 26, when the usual seasonal rise was resumed, and this was continued until about September 19, when the maximum was reached. This abrupt change in the daily rate of increase of No. V coincided with the first appearance of water on the same day in the 10-foot shaft and was evidently due to the convection of heat by the flood-water, which was probably at a higher temperature than the gravel at a depth of 10 feet below the surface.

Discussion of the Observations.

The first step in the discussion of the observations is to group them into monthly means, and thence to deduce the harmonic expressions which will represent the variations of each thermometer throughout the year.*

In this part of the work, and in the tables of daily results on pp. 130–201, I have adopted the Fahrenheit scale of temperature as the observations, although in the first instance deduced on the Centigrade system, had already been reduced to this scale for comparison with other meteorological results, and as

* Professor W. Thomson, "On the Reduction of Observations of Underground Temperature," *Trans. Roy. Soc. Edin.*, vol. 22, p. 409.

the observations of a similar kind at Greenwich* and Edinburgh† discussed by Professor Everett are expressed in the same scale, there seemed to be a distinct advantage in retaining it.

On account of the inequality in the lengths of the calendar months I have discarded them in deducing monthly means, and, as far as possible, have divided the year into twelve equal portions. As the observations were taken only once a day it is, of course, necessary to have an integer number of days in each division, but the following scheme makes the difference in their lengths as small as possible and with one exception, that of January, they cover alternately thirty and thirty-one days. In Leap Year this exception is removed by intercalating the extra day in January, instead of February.

Divisions of the Year.

	Common Years.		Leap Years.	
Division.		No. of Days.		No. of Days.
I.	Jan. 1 to Jan. 30 (incl.)	30	Jan. 1 to Jan. 31 (incl.)	31
II.	Jan. 31 „ Mar. 1 „	30	Feb. 1 „ Mar. 1 „	30
III.	Mar. 2 „ Apr. 1 „	31		
IV.	Apr. 2 „ May 1 „	30		
V.	May 2 „ June 1 „	31		
VI.	June 2 „ July 1 „	30		
VII.	July 2 „ Aug. 1 „	31		
VIII.	Aug. 2 „ Aug. 31 „	30		
IX.	Sept. 1 „ Oct. 1 „	31		
X.	Oct. 2 „ Oct. 31 „	30		
XI.	Nov. 1 „ Dec. 1 „	31		
XII.	Dec. 2 „ Dec. 31 „	30		

For the sake of convenience I have retained below the usual names of the months for these twelve divisions of the year. A good deal might, I think, be said in favour of adopting these intervals, instead of calendar months, for other meteorological returns where the means of daily observations are taken.

The means of the daily results for these artificial months, or divisions of the year, are given on pp. 202–204 of this volume. In deducing these separate monthly means the corrections contained in Table VI have been applied, and the results deduced in the remainder of this discussion, which are based entirely on these monthly means, are accordingly freed from the small movement in the zero-points of the thermometers, so far as it is of a progressive character.

* *Greenwich Observations*, 1860, p. (cxciii).

† Professor Everett, *Trans. Roy. Soc. Edin.*, vol. 22, p. 409.

Collecting the means given at the foot of each column on pp. 202–204 we obtain the following table:—

Mean Monthly Temperature of the Ground at the Radcliffe Observatory, Oxford, Nov. 1, 1898—Oct. 31, 1910.

Thermometer	I.	II.	III.	IV.	V.
Depth	6½ in.	1 ft. 6 in.	3 ft. 6½ in.	5 ft. 8½ in.	9 ft. 11½ in.
	°	°	°	°	°
January ...	38·575	40·249	42·962	45·427	49·229
February ...	38·472	39·590	41·649	43·791	47·535
March	42·030	42·100	42·757	43·887	46·593
April	47·963	46·817	45·941	45·731	46·713
May	55·442	52·863	50·454	48·943	47·968
June	61·655	58·996	55·857	53·260	50·235
July	65·601	63·033	59·855	56·890	52·715
August ...	63·917	62·831	61·168	58·995	54·965
September ...	58·555	58·814	58·988	58·281	55·872
October ...	51·782	53·270	55·134	55·836	55·394
November ...	44·663	46·810	49·939	52·022	53·794
December ...	40·455	42·453	45·530	48·073	51·421

These monthly means are graphically represented in Plate 2.

To the five curves in this diagram which represent the variations of the underground thermometers a sixth is added showing the mean temperature of the air in the Stevenson screen at a height of 4 feet above the ground, deduced from observations of a standard mercury thermometer at 8 a.m., Noon, and 8 p.m. For this curve the mean monthly temperatures have been taken directly from our earlier volumes for the whole period November, 1898, to October, 1910, and accordingly correspond to the calendar months, not the artificial divisions of the year which have been adopted in the case of the underground thermometers. The differences are, however, never very large, and, as the air-temperature is inserted merely for comparison and has not been used in any of the subsequent computations, it seemed unnecessary to go to the labour of converting the monthly means from calendar months to artificial divisions.

In Plate 3 are exhibited the mean monthly temperature gradients beneath the surface deduced from the same table.

The harmonic expression to represent the temperature of any particular thermometer throughout the year will be

$$\theta = a_0 + a_1 \cos 2\pi t + a_2 \cos 4\pi t + a_3 \cos 6\pi t + \text{ etc.} \ldots + b_1 \sin 2\pi t + b_2 \sin 4\pi t + b_3 \sin 6\pi t + \text{ etc.} \quad . \quad . \quad . \quad . \quad (c)$$

or

$$\theta = P_0 + P_1 \sin (2\pi t + E_1) + P_2 \sin (4\pi t + E_2) + P_3 \sin (6\pi t + E_3) + \text{ etc.} \quad . \quad (d)$$

where t denotes the time expressed as fraction of a year.

In determining the coefficients of these Fourier series I have included twelve terms which, of course, is all that can be deduced from twelve monthly means. Some of the smaller coefficients so obtained may not, perhaps, be worthy of much confidence, but I have retained the maximum number since, if the work be systematically arranged, it is very little more trouble to compute twelve than to compute six or seven such coefficients, and it has the important advantage that, since the series of twelve terms must reproduce exactly the twelve monthly means from which they are deduced, it is an easy matter to verify strictly the numerical accuracy of the work.

The series with which we have to deal accordingly becomes

$$\theta = a_0 + a_1 \cos 2\pi t + a_2 \cos 4\pi t + \text{etc.} \ldots + a_6 \cos 12\pi t$$
$$+ b_1 \sin 2\pi t + b_2 \sin 4\pi t + \text{etc.} \ldots + b_5 \sin 10\pi t$$

or

$$\theta = P_0 + P_1 \sin(2\pi t + E_1) + P_2 \sin(4\pi t + E_2) + \text{etc.} \ldots + P_6 \sin(12\pi t \pm 90^\circ) \quad (e)$$

the upper sign in the last bracket being taken if a_6 be positive and the lower sign if it be negative.

We thus obtain the following values of the coefficients a_0, a_1, etc., b_1, etc.

Values of the Coefficients $a_0, a_1, \ldots b_1, \ldots$

Therm.	a_0	a_1	a_2	a_3	a_4	a_5	a_6
	°	°	°	°	°	°	°
Air.	49·241	−11·259	+1·114	+0·035	+0·386	−0·031	+0·048
I.	50·760	−13·512	+1·056	+0·046	+0·221	−0·047	+0·051
II.	50·652	−11·437	+0·806	−0·003	+0·190	+0·047	−0·007
III.	50·853	−8·519	+0·463	−0·024	+0·120	+0·097	−0·027
IV.	50·928	−5·797	+0·207	−0·025	+0·043	+0·090	−0·019
V.	51·037	−1·770	−0·033	−0·006	−0·024	+0·032	−0·008
		b_1	b_2	b_3	b_4	b_5	
Air.		−1·835	+0·551	−0·074	+0·043	−0·105	
I.		−1·819	+0·110	−0·071	−0·029	−0·160	
II.		−3·172	+0·319	−0·040	−0·039	−0·095	
III.		−4·566	+0·402	0·000	+0·011	−0·030	
IV.		−5·041	+0·383	+0·014	+0·037	+0·003	
V.		−4·346	+0·224	+0·010	+0·020	+0·016	

In this table I have added for comparison the constants of the Fourier series representing the mean air temperature for the calendar months as given on p. 204.

The amplitude of any wave P_n and its phase angle E_n are given in the following table:—

Values of the Coefficients P_n *and* E_n.

Therm.	P_0	P_1	P_2	P_3	P_4	P_5	P_6
	°	°	°	°	°	°	°
Air.	49·241	11·407	1·243	0·082	0·389	0·109	0·048
I.	50·760	13·634	1·062	0·085	0·223	0·167	0·051
II.	50·652	11·869	0·867	0·040	0·194	0·106	0·007
III.	50·853	9·665	0·613	0·024	0·121	0·102	0·027
IV.	50·928	7·682	0·435	0·029	0·057	0·090	0·019
V.	51·037	4·693	0·226	0·012	0·031	0·036	0·008
		E_1	E_2	E_3	E_4	E_5	E_6
		° ′	° ′	° ′	° ′	° ′	°
Air.		260 44·6	63 41	154 41	83 39	196 27	90
I.		262 20·0	84 3	147 4	97 29	196 22	90
II.		254 30·0	68 25	184 17	101 36	153 41	270
III.		241 48·6	49 2	270 0	84 46	107 11	270
IV.		228 59·4	28 23	299 15	49 17	88 5	270
V.		202 9·6	351 37	329 2	309 48	63 26	270

We have next to determine the thermal diffusivity of the gravel in which the thermometers are placed.

The surface of the ground in the neighbourhood of the spot where the thermometers are sunk being approximately level and the gravel being, as far as we know, of a fairly uniform character for a considerable distance in all directions, the flow of heat at any depth will be represented by Fourier's equation

$$\kappa \frac{d^2\theta}{dx^2} = \frac{d\theta}{dt}$$

in which κ denotes the thermal diffusivity and x denotes the depth below the surface. The solution of this to represent the variations of temperature in a Fourier series is

$$\theta = \Sigma A_n e^{-a_n x} \sin(2n\pi t + \beta_n x + \gamma),$$

where $a_n^2 - \beta_n^2 = 0$ and $a_n \beta_n \kappa = -n\pi$.

From this it follows that

$$a_n = \sqrt{\frac{n\pi}{\kappa}} = -\beta_n.$$

Comparing the above expression with the series (*e*) given on p. 121 we have

$$P_n = A_n e^{-a_n x} \text{ and } E_n = \beta_n x + \gamma.$$

For a second thermometer at a depth x' we have similarly

$$P_n' = A_n e^{-a_n x'} \text{ and } E_n' = \beta_n x' + \gamma.$$

We thus obtain two equations for the quantity $\sqrt{\frac{n\pi}{\kappa}}$, namely,

$$\left.\begin{aligned}\sqrt{\frac{n\pi}{\kappa}} &= \frac{\text{Log } P_n - \text{Log } P_n'}{x' - x} \\ \text{and} \qquad \sqrt{\frac{n\pi}{\kappa}} &= \frac{E_n - E_n'}{x' - x}\end{aligned}\right\} \quad \ldots\ldots\ldots \quad (f)$$

Thus from each wave as observed at any pair of thermometers we obtain two determinations of the value of κ, one from the diminution of amplitude and the other from the retardation of phase.

In the above expressions (f) the logarithms are of course Neperian, while the angles are expressed in radian measure, but the equations may be easily adapted for common logarithms and angles expressed, as in the table, in degrees. It is convenient, also, at this stage to take for unit of length in the value of κ the French foot (= 0·32484 metres) in place of the English foot (= 0·30480 metres) so as to compare the resulting value of κ directly with the corresponding quantity found by Prof. Everett for the gravel at the Royal Observatory, Greenwich, as published in the *Greenwich Observations* for 1860, where that unit is employed, and those found by Lord Kelvin from the Edinburgh Observations as given by Prof. Everett in terms of the same units.

If ϕ be the length of the French foot and ϵ that of the English foot, then the first of equations (f) for $\sqrt{\frac{n\pi}{\kappa}}$ is to be multiplied by ϕ/ϵ, and to adapt for common logarithms we have still to divide by the modulus, M. If therefore we take $A = \phi/M\epsilon$, we have the required expressions for the yearly and half-yearly waves, beyond which it is unnecessary to go:—

$$\text{For the yearly wave} \quad \sqrt{\frac{\pi}{\kappa}} = A \cdot \frac{\text{Log } P_1 - \text{Log } P_1'}{x' - x} \quad \ldots\ldots \quad (g)$$

$$\text{and for the half-yearly wave} \quad \sqrt{\frac{\pi}{\kappa}} = A' \cdot \frac{\text{Log } P_2 - \text{Log } P_2'}{x' - x} \quad \ldots\ldots \quad (h)$$

where $A' = A/\sqrt{2}$.

To adapt the second expression of (f) we have again to multiply by ϕ/ϵ and to convert from radian measure to degrees we must multiply by the factor $\pi/180 = R$. Taking $C = R\phi/\epsilon$ and $C' = C/\sqrt{2}$ we thus find

$$\text{For the yearly wave} \quad \sqrt{\frac{\pi}{\kappa}} = C \cdot \frac{E_1 - E_1'}{x' - x} \quad \ldots\ldots\ldots \quad (j)$$

$$\text{and for the half-yearly wave} \quad \sqrt{\frac{\pi}{\kappa}} = C' \cdot \frac{E_2 - E_2'}{x' - x} \quad \ldots\ldots\ldots \quad (k)$$

On the right-hand side of these equations common logarithms are to be used, the phase angles are taken in degrees, while the depths x and x' are expressed in English feet. The resulting values of κ will then be expressed in square (French) feet per year as given by Prof. Everett.

The logarithms of the factors A, A′, C and C′ are as follows:—

$$\text{Log A} = 0{\cdot}38988 \qquad \text{Log C} = 8{\cdot}26954$$
$$\text{Log A}' = 0{\cdot}23936 \qquad \text{Log C}' = 8{\cdot}11902$$

The resulting values of the quantity $\sqrt{\pi/\kappa}$ are given in the following table:—

Values of $\sqrt{\frac{\pi}{\kappa}}$.

	Yearly Wave.		Half-Yearly Wave.		
Thermometers Compared.	Amplitude.	Phase.	Amplitude.	Phase.	Means.
No. V & No. IV.	0·1236	0·1174	0·1161	0·1138	0·1177
„ V „ III.	·1200	·1149	·1172	·1177	·1175
„ V „ II.	·1169	·1151	·1198	·1194	·1178
„ IV „ III.	·1130	·1101	·1193	·1254	·1170
„ IV „ II.	·1102	·1128	·1235	·1251	·1179
„ III „ II.	·1072	·1156	·1279	·1249	·1189
Means	0·1152	0·1143	0·1206	0·1211	0·1178

The results derived from the readings of No. I have been omitted, as they seem too much affected by short period variations to afford reliable results. This thermometer, too, is buried in a surface soil which is of quite a different character from the sandy gravel containing the other thermometers.

Although the values of $\sqrt{\pi/\kappa}$ as derived from different pairs of thermometers in the above table show considerable discordances when the values in any particular column are compared together, yet the means of the four different results from each pair, as given in the last column, agree in a remarkable manner.

It is also to be observed that the mean of the two values deduced from the diminution of amplitude of the yearly and half-yearly waves, viz. 0·1179, agrees very closely with that deduced from the retardation of phase of the two waves, viz. 0·1177.

We may, therefore, take the mean of all, viz. 0·1178, as a very close approximation to the true value of $\sqrt{\pi/\kappa}$ for the gravel in which the thermometers are sunk.

The value deduced for this quantity from the observations of 1899 only was 0·1188.*

The value of $\sqrt{\pi/\kappa}$ as found by Professor Everett † for the gravel at the Royal Observatory, Greenwich, was 0·09175, while the values found by Lord Kelvin from observations at three stations at Edinburgh were

Trap-rock of Calton Hill	0·1156
Experimental Garden Sand	0·1098
Craigleith Quarry, Sandstone . . .	0·06744

all expressed in terms of the same units as those I have adopted above, namely, the French foot and the year.

Taking the mean value found above for $\sqrt{\pi/\kappa}$, viz. 0·1178, we find the value of κ expressed in terms of the French foot and year to be 226·38. To reduce this to C. G. S. units we multiply by the factor $3{\cdot}347 \times 10^{-5}$ § and we find the following values of κ:—

	κ
Trap-rock of Calton Hill	0·00786
Experimental Garden Sand	·00872
Craigleith Quarry, Sandstone	·02311
Gravel at the Royal Observatory, Greenwich . .	·01249
Gravel at the Radcliffe Observatory, Oxford . .	·00758

in square centimetres per second.

If in equation (g) we put $\varpi = 0$, then P_1 will represent the amplitude of the annual wave at the surface, and if we write P_{01} (instead of P_1) for this quantity we shall have

$$\text{Log } P_{01} = \text{Log } P_1' + \frac{\varpi'}{A} \cdot \sqrt{\frac{\pi}{\kappa}} \quad \ldots\ldots\ldots \quad (l)$$

where P_1' and ϖ' refer to any one of the thermometers.

Similarly, from equation (h) we obtain

$$\text{Log } P_{02} = \text{Log } P_2' + \frac{\varpi'}{A'} \cdot \sqrt{\frac{\pi}{\kappa}} \quad \ldots\ldots\ldots \quad (m)$$

From equations (j) and (k) we have also for the phases of the yearly and half-yearly waves at the surface

$$E_{01} = E_1' + \frac{\varpi'}{C} \cdot \sqrt{\frac{\pi}{\kappa}} \quad \ldots\ldots\ldots \quad (n)$$

and

$$E_{02} = E_2' + \frac{\varpi'}{C'} \cdot \sqrt{\frac{\pi}{\kappa}} \quad \ldots\ldots\ldots \quad (p)$$

* *Phil. Trans.*, A, vol. 195, p. 256. Cf. also *Radcliffe Observations*, vol. xlviii, p. xviii.

† *Greenwich Observations*, 1860, p. (cxcvi).

§ Everett's *C. G. S. System of Units*, p. 125.

We thus find the following table:—

Thermometer.	P_{01}	P_{02}	E_{01}	E_{02}
	°	°	° ′	° ′
I.	14·48	1·16	265 45·9	88 54
II.	·01	·10	264 0·0	81 51
III.	·30	·07	264 14·4	80 45
IV.	·44	·06	265 8·4	79 30
V.	·11	·07	265 13·6	80 48
Means	14·268	1·092	264 52·5	82 22

or omitting the results from Thermometer No. I for the reasons given on p. 124 we have

$$14°·215 \quad 1°·075 \quad 264° \; 39'·1 \quad 80° \; 44'$$

Putting 14·215 as the value of P_{01} in equation (l) we can determine the value of x' corresponding to a given value of P_1', or the depth at which the amplitude of the yearly wave is reduced to any given value, on the hypothesis that the conditions prevailing between the depths of 1 foot 6 inches and 10 feet remain unchanged at greater depths.

Although theoretically there is no invariable layer so long as equations (f) are applicable, still we may consider that an annual variation of 0°·02 F. is less than can certainly be detected. The stratum, therefore, at which the amplitude of the annual wave is reduced to 0°·01 may to all intents and purposes be considered as invariable.

For this depth we have $\text{Log } P_1' = -2$ and therefore

$$x' = A\{2 + \text{Log } P_{01}\} \Big/ \sqrt{\frac{\pi}{\kappa}}.$$

For the half-yearly wave we have

$$x'' = A'\{2 + \text{Log } P_{02}\} \Big/ \sqrt{\frac{\pi}{\kappa}}$$

where x'' denotes the depth at which the amplitude of this wave is reduced to 0°·01.

Thus we find, as the depths in English feet at which the amplitudes of the yearly and half-yearly waves are reduced to 0°·01,

$$x' = 65·68 \text{ feet, and } x'' = 29·92 \text{ feet.}$$

At 65·68 feet the half-yearly wave (amplitude $< 0°·00004$) and subsequent harmonics are quite insensible. We may, therefore, conclude that at a depth of 66 feet in Oxford gravel the temperature would remain sensibly constant throughout the year.

The depths at which the annual and half-yearly waves are reduced to an amplitude of 0°·1 are found in a similar way to be 44·85 and 15·19 English feet respectively.

It may be remarked that the value of x' here found agrees very closely with the value found for the same quantity from the observations of 1899 only, as given in the *Phil. Trans.*, A, vol. 195, p. 257, namely 66·0 feet. The values of x'', however, differ more widely, the half-yearly wave having been abnormally marked in the year 1899.

It may also be shown that if the gravel extended to a thickness of 28·42 feet, at that depth the phase of the yearly wave would be retarded by 180° so that the maximum would occur in January and the minimum in July, while the amplitude would be reduced to 0°·617. At double that depth the wave would again be in the same phase as at the surface, but reduced to an amplitude of only 0°·027.

From equations (l) and (n) we compute the rate at which the logarithm of the amplitude of the first harmonic decreases and the rate at which its phase diminishes for each foot of descent in the gravel.

Thus we have for this harmonic

$$\text{Logarithmic Decrement} = \sqrt{\frac{\pi}{\kappa}}/\text{A per foot},$$

and

$$\text{Retardation of Phase} = \sqrt{\frac{\pi}{\kappa}}/\text{C} \quad \text{,,} \quad \text{,,}$$

common logarithms being used and the phase angles being expressed in degrees.

For the second harmonic these quantities are to be multiplied by $\sqrt{2}$, for the third by $\sqrt{3}$, and so on.

Thus for the first two harmonics we find

	Logarithmic Decrement.	Retardation of Phase.
		°
First Harmonic	0·048003	6·333 per foot.
Second ,,	·067889	8·956 ,, ,,

With a view of detecting any variations of periods longer than a year, which might exist in these observations, the sum of the Fourier terms (or, what comes to the same thing, the general mean for each month as deduced from the whole twelve years' observations) was deducted from each of the separate monthly means given on pp. 202–204, and the differences plotted on square-ruled paper.

The result is shown in Plate 4, the ordinates of the 'curves' being the differences so found, while the abscissae represent the time.

At the top of the diagram is the curve of mean air temperature, or rather the curve representing the difference between the mean air temperature for each month and the corresponding monthly mean for the whole period. Neither in this curve nor in any of the five curves below it, which show

similar differences for the five underground thermometers, is there any clear indication of a regular periodicity. The chart is, however, interesting from other points of view, and, as illustrating the accuracy of the whole series of observations, is well worthy of careful study.

It will be observed that each curve is a very approximate reproduction of the one next above it, the sharper features of the upper curve being in each case slightly rounded off, or toned down, in passing to the lower, until at the depth of 10 feet the more sudden variations have disappeared and those of longer duration have been to a great extent smoothed out.

Each of these curves has been obtained quite independently of the others, and it thus appears that, when correction is made for the mean seasonal variation of temperature, the changes from month to month in the temperature at any particular depth is directly related to the similar changes which take place in the mean temperature of the air above the surface of the ground.

The retardation of phase is well shown, as well as the diminution in the amplitude, in tracing the passage of any oscillation from the surface to a depth of 10 feet.

All six curves agree in indicating a general falling off in the mean temperature amounting to about 2° during the period of 12 years over which the observations extend.

Note by Prof. W. J. Sollas, LL.D., D.Sc., F.R.S., on the Composition of the Gravel in which the Thermometers are placed.

The samples of gravel from the sinkings in the grounds of the Observatory are composed almost entirely of calcareous pebbles and sand derived from the Jurassic limestones of the Thames basin. Pebbles of flint or quartz are rarely present. Quartz sand is present in subordinate but appreciable quantity; it occurs in imperfectly rounded grains, often coated with a film of ferric hydrate: of clay there is surprisingly little.

1. The sample from 1′ 6″ is 'made' ground, as shown by the presence of a rusted iron nail, fragments of window-glass, and a bit of a tobacco-pipe stem. It consists chiefly of decomposed fragments of limestone, fine calcareous and quartz sand and ferric hydrates, all agglomerated together, possibly by organic matter.

2. Sample 3′ 6½″ is a fine gravel similar to the preceding. The agglomeration of the material is destroyed by simply immersing in water. On sifting through a sieve with meshes nearly 2 mm. square, one half passed through (fine material) and one half remained behind (coarse material).

3. Samples from 5′ 8½″, 5′ 10″ and 9′ 11½″ are clean washed fine gravel of the composition already described. They differ in fineness only; thus, that from 5′ 8½″ consists of 46 % fine, 54 % coarse material; from 5′ 10″ of 41 % fine, 59 % coarse; from 9′ 11½″ of 29 % fine and 71 % coarse material.

W. J. SOLLAS.

March 27, 1916.

Plate 1

Resistance Box and Galvanometer

PLATE 2

MEAN MONTHLY TEMPERATURE OF THE GROUND NOV. 1898 – OCT. 1910

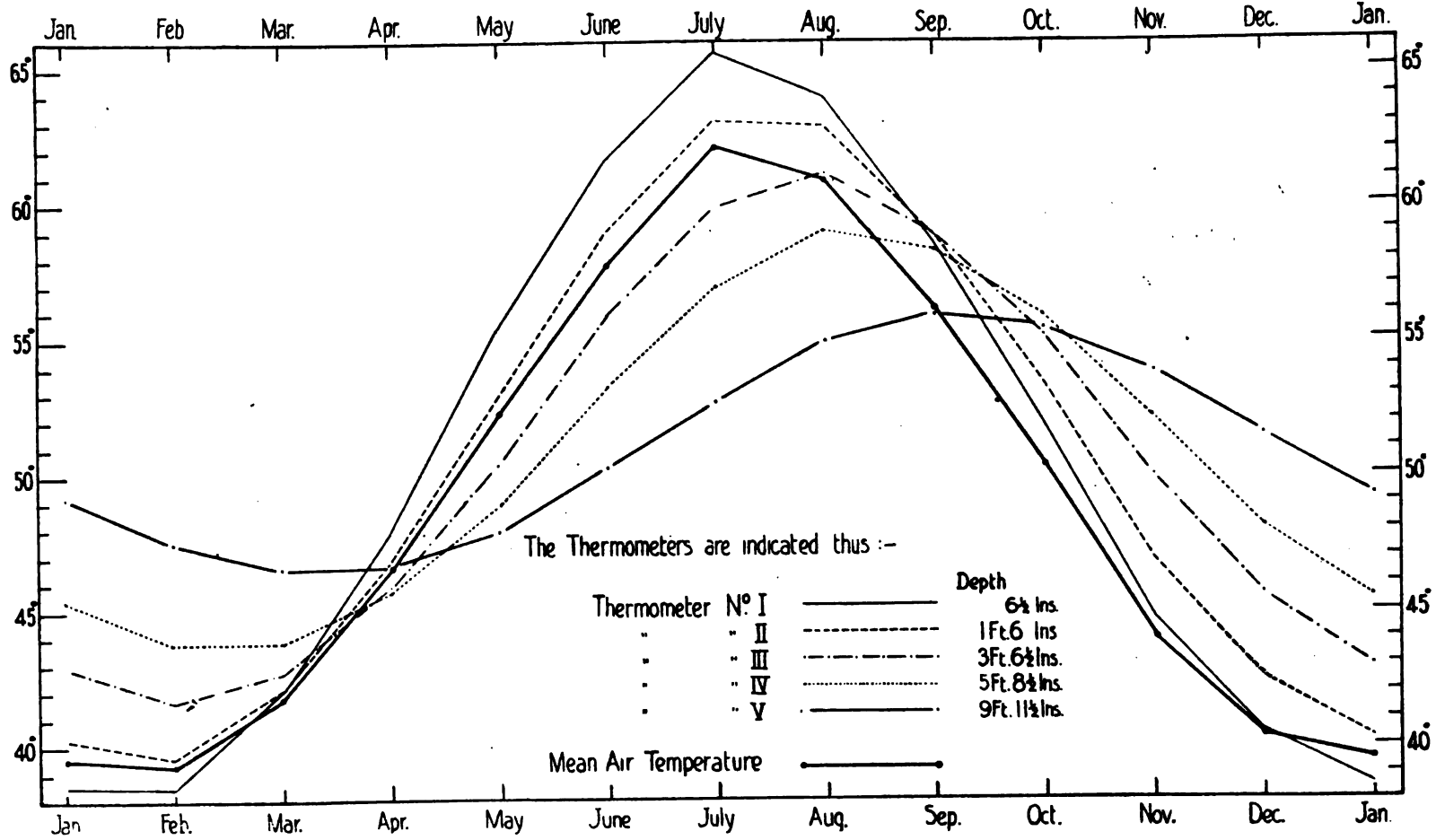
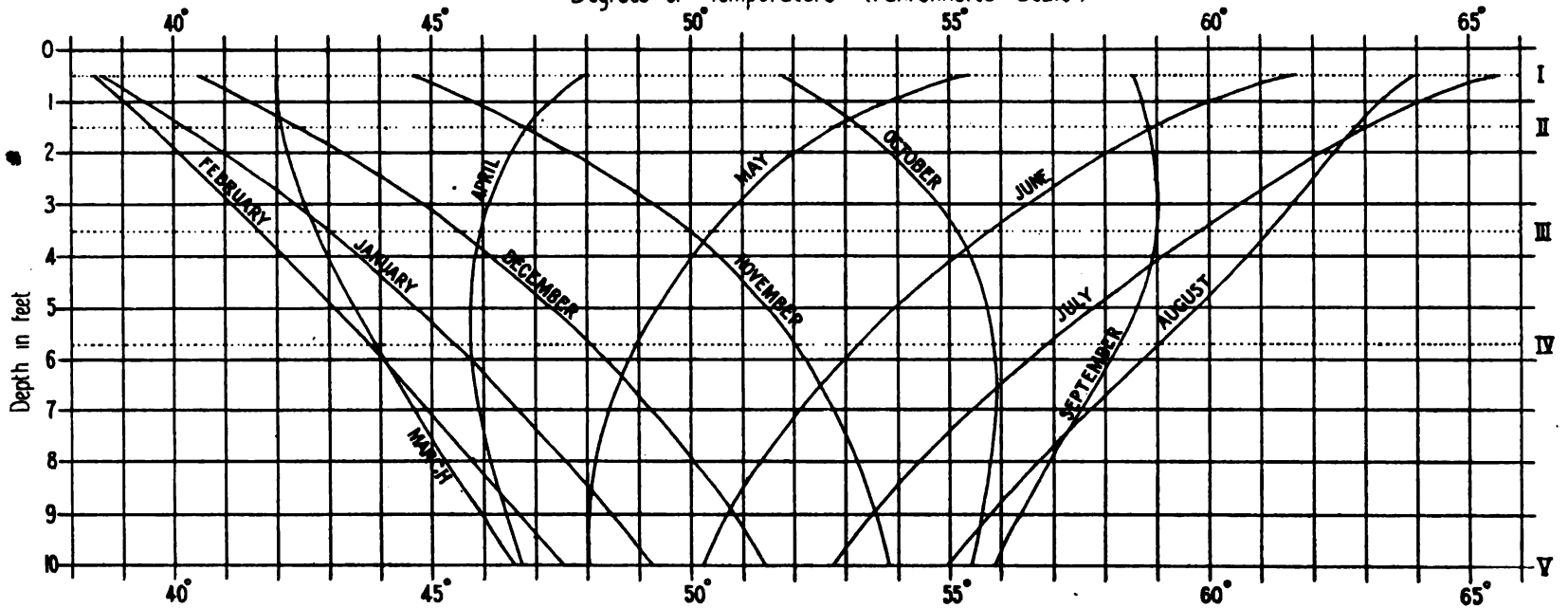


PLATE 3

MEAN MONTHLY TEMPERATURE GRADIENTS

Degrees of Temperature (Fahrenheit's Scale)



The positions of the thermometers are indicated by the Roman numerals at the right of the diagram

DAILY TEMPERATURES AND MEAN MONTHLY RESULTS AS DEDUCED FROM PLATINUM RESISTANCE THERMOMETERS.

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1898.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1898.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Nov.	°	°	°	°	°	Dec.	°	°	°	°	°
1	46·80	51·39	53·96	54·23	53·71	1	43·38	42·21	47·68	50·65	52·84
2	48·36	50·52	53·71	54·21	53·71	2	46·26	44·74	47·48	50·45	52·81
3	53·64	51·69	53·40	54·21	53·74	3	46·96	45·79	47·44	50·23	52·72
4	48·00	51·39	53·19	54·09	53·71	4	47·79	46·62	47·61	50·11	52·65
5	49·05	50·65	53·11	54·01	53·70	5	50·36	47·75	47·80	49·98	52·59
6	46·69	50·40	52·95	53·92	53·70	6	51·01	48·74	48·06	49·89	52·48
7	47·89	50·09	52·70	53·83	53·69	7	47·57	48·88	48·42	49·84	52·39
8	48·16	49·84	52·50	53·71	53·67	8	44·01	47·34	48·67	49·69	52·30
9	48·31	49·77	52·32	53·62	53·65	9	45·70	46·63	48·65	49·69	52·20
10	49·87	50·31	52·16	53·49	53·64	10	45·59	46·33	48·51	49·71	52·12
11	49·89	50·61	52·09	53·38	53·62	11	48·27	47·26	48·38	49·71	52·05
12	50·49	50·74	52·05	53·28	53·58	12	48·15	47·86	48·38	49·68	51·98
13	48·94	50·85	52·05	53·20	53·58	13	44·33	47·80	48·51	49·69	51·93
14	46·36	50·02	52·02	53·10	53·55	14	41·88	46·11	48·58	49·66	51·85
15	47·43	49·33	51·91	53·02	53·53	15	43·75	45·99	48·43	49·68	51·81
16	50·18	49·77	51·73	52·97	53·51	16	42·89	45·32	48·29	49·68	51·76
17	51·17	50·65	51·62	52·88	53·49	17	47·37	46·22	48·13	49·66	51·75
18	49·60	50·83	51·64	52·79	53·44	18	47·41	46·24	48·07	49·64	51·73
19	47·05	49·98	51·67	52·72	53·39	19	46·74	46·18	48·15	49·53	51·66
20	46·47	49·30	51·60	52·66	53·35	20	39·85	46·04	48·29	49·48	51·60
21	46·51	48·90	51·44	52·59	53·31	21	40·57	44·06	48·20	49·46	51·57
22	41·52	47·79	51·26	52·54	53·28	22	38·98	43·83	47·84	49·44	51·53
23	38·71	45·70	50·97	52·45	53·24	23	36·07	42·51	47·50	49·37	51·48
24	41·13	44·78	50·43	52·32	53·20	24	36·48	41·20	47·07	49·26	51·44
25	43·61	45·00	49·78	52·14	53·19	25	39·58	41·59	46·60	49·14	51·44
26	43·36	45·36	49·21	51·82	53·15	26	42·55	42·48	46·24	48·97	51·39
27	43·14	45·39	48·88	51·51	53·11	27	46·54	44·35	46·04	48·81	51·35
28	39·25	44·62	48·67	51·22	53·04	28	41·50	44·51	46·11	48·60	51·28
29	38·43	43·36	48·42	51·03	52·97	29	41·76	43·12	46·22	48·47	51·24
30	37·80	42·51	48·07	50·83	52·92	30	39·56	43·25	46·17	48·40	51·15
						31	37·27	41·63	46·02	48·27	51·10
Means	46·26	48·72	51·52	52·93	53·45	Means	43·88	45·24	47·66	49·51	51·88

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1899.	Depth.					1899.	Depth.				
	I.	II.	III.	IV.	V.		I.	II.	III.	IV.	V.
	ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½		ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½
Jan.	°	°	°	°	°	Feb.	°	°	°	°	°
1	37·17	41·27	45·73	48·18	51·06	1	37·40	39·61	42·96	45·70	49·01
2	37·53	40·77	45·36	48·02	50·94	2	35·26	39·16	42·85	45·57	48·97
3	38·12	40·60	45·01	47·73	50·86	3	34·27	38·50	42·73	45·46	48·92
4	42·87	41·25	44·76	47·68	50·83	4	33·71	37·83	42·53	45·36	48·88
5	40·28	42·48	44·62	47·48	50·74	5	33·48	37·33	42·28	45·23	48·85
6	38·32	41·27	44·65	47·32	50·65	6	34·88	36·97	41·94	45·09	48·78
7	42·03	41·85	44·62	47·25	50·61	7	38·71	37·29	41·65	44·98	48·76
8	44·10	42·98	44·58	47·14	50·54	8	42·73	39·72	41·45	44·76	48·72
9	43·45	43·54	44·67	47·03	50·45	9	44·53	41·65	41·61	44·60	48·69
10	44·02	43·92	44·85	46·98	50·38	10	46·60	43·00	41·95	44·44	48·56
11	39·56	43·21	44·98	46·92	50·29	11	46·42	43·84	42·44	44·38	48·49
12	42·10	42·03	45·00	46·90	50·22	12	43·74	44·04	42·91	44·40	48·38
13	40·08	42·30	44·83	46·83	50·16	13	45·18	43·57	43·29	44·49	48·33
14	39·54	42·06	44·71	46·76	50·05	14	43·57	43·61	43·52	44·58	48·25
15	38·97	41·40	44·60	46·71	49·98	15	44·67	43·70	43·74	44·71	48·18
16	44·58	42·96	44·46	46·63	49·91	16	43·48	43·79	43·88	44·82	48·11
17	39·07	42·78	44·42	46·51	49·82	17	42·89	43·41	44·04	44·91	48·07
18	42·57	42·01	44·49	46·45	49·75	18	42·96	43·65	44·10	44·98	48·06
19	46·09	43·47	44·40	46·42	49·68	19	44·76	44·06	44·19	45·07	48·02
20	42·82	43·72	44·47	46·33	49·60	20	44·26	44·56	44·29	45·14	47·98
21	47·89	44·65	44·67	46·33	49·57	21	43·38	44·13	44·47	45·21	47·97
22	45·99	45·59	44·83	46·26	49·44	22	40·06	43·18	44·55	45·30	47·93
23	42·71	44·74	45·12	46·27	49·35	23	38·52	42·12	44·51	45·36	47·91
24	39·65	43·18	45·27	46·31	49·26	24	38·01	41·45	44·31	45·36	47·88
25	35·94	41·63	45·14	46·36	49·21	25	38·10	41·00	44·10	45·41	47·88
26	34·72	40·23	44·87	46·40	49·17	26	35·82	40·69	43·90	45·39	47·86
27	34·38	39·27	44·42	46·36	49·15	27	35·40	39·96	43·65	45·34	47·86
28	34·66	38·70	43·99	46·31	49·14	28	35·08	39·45	43·38	45·30	47·84
29	36·63	38·89	43·57	46·20	49·10						
30	38·16	39·45	43·25	46·04	49·08						
31	37·71	39·67	43·09	45·86	49·06						
Means	40·38	42·00	44·63	46·77	49·94	Means	40·28	41·47	43·26	45·05	48·33

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1899.	Depth.					1899.	Depth.				
	I.	II.	III.	IV.	V.		I.	II.	III.	IV.	V.
	ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½		ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½
Mar.	°	°	°	°	°	Apr.	°	°	°	°	°
1	37·18	39·27	43·07	45·19	47·82	1	50·22	46·31	44·06	44·60	47·16
2	38·66	39·79	42·87	45·10	47·82	2	49·57	47·57	44·49	44·76	47·14
3	38·93	40·10	42·71	44·98	47·79	3	50·11	47·77	44·94	44·89	47·10
4	39·85	40·39	42·67	44·87	47·77	4	49·73	47·98	45·39	45·07	47·08
5	39·09	40·53	42·64	44·76	47·71	5	49·64	47·57	45·77	45·27	47·08
6	37·35	40·28	42·66	44·69	47·70	6	52·48	47·88	46·04	45·45	47·08
7	37·08	39·78	42·62	44·64	47·66	7	49·12	48·47	46·20	45·63	47·10
8	40·39	40·17	42·57	44·58	47·64	8	46·81	47·26	46·47	45·77	47·08
9	42·22	40·87	42·51	44·53	47·61	9	45·46	46·45	46·56	45·95	47·12
10	41·59	41·23	42·57	44·47	47·57	10	49·68	46·78	46·54	46·13	47·14
11	43·59	41·79	42·69	44·46	47·53	11	47·19	47·21	46·53	46·26	47·16
12	45·41	43·16	42·84	44·46	47·50	12	47·73	46·18	46·62	46·35	47·19
13	43·97	43·52	43·11	44·44	47·46	13	47·26	46·20	46·58	46·42	47·23
14	43·39	43·72	43·39	44·51	47·43	14	45·79	46·49	46·54	46·47	47·26
15	45·01	44·15	43·65	44·55	47·39	15	47·05	46·11	46·58	46·56	47·30
16	43·29	44·51	43·90	44·65	47·37	16	44·74	46·18	46·58	46·62	47·34
17	44·17	44·78	44·11	44·74	47·35	17	46·26	45·07	46·51	46·65	47·35
18	42·67	44·22	44·31	44·83	47·32	18	49·73	45·90	46·40	46·69	47·39
19	39·90	43·03	44·38	44·92	47·28	19	49·73	46·62	46·42	46·69	47·43
20	38·66	42·10	44·35	45·05	47·28	20	50·25	47·50	46·56	46·69	47·46
21	36·00	41·20	44·17	45·10	47·26	21	47·50	48·06	46·74	46 74	47·50
22	34·88	40·06	43·93	45·12	47·25	22	46·76	46·89	46·94	46·80	47·52
23	34·14	39·33	43·59	45·12	47·25	23	48·20	47·32	47·01	46·89	47·55
24	33·80	38·55	43·23	45·07	47·26	24	47·55	47·44	47·07	46·92	47·59
25	35·58	38·52	42·84	45·00	47·28	25	49·42	47·53	47·10	46·99	47·61
26	41·45	39·31	42·45	44·85	47·26	26	49·08	48·00	47·21	47·07	47·62
27	42·51	41·27	42·42	44·71	47·25	27	49·87	47·95	47·34	47·12	47·67
28	44·69	42·35	42·57	44·62	47·26	28	52·32	49·32	47·44	47 16	47·68
29	48·15	43·68	42·82	44·56	47·26	29	52·29	49·91	47·70	47·25	47·71
30	47·55	44·96	43·18	44·53	47·21	30	50·97	50·14	47·95	47·34	47·73
31	47·21	45·54	43·63	44·56	47·17						
Means	40·91	41·68	43·18	44·76	47·44	Means	48·75	47·34	46·48	46 31	47·35

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1899.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1899.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
May	°	°	°	°	°	June	°	°	°	°	°
1	49·51	50·16	48·22	47·44	47·77	1	65·77	57·06	52·74	51·13	49·46
2	52·86	49·78	48·43	47·59	47·80	2	68·00	58·57	53·26	51·28	49·55
3	51·85	50·79	48·60	47·70	47·82	3	66·74	59·68	53·85	51·46	49·64
4	49·64	50·14	48·81	47·84	47·86	4	68·00	60·46	54·43	51·66	49·68
5	50·85	49·48	48·94	47·98	47·91	5	70·32	61·65	55·00	51·91	49·73
6	51·93	49·98	48·99	48·06	47·93	6	71·64	62·37	55·65	52·18	49·82
7	51·64	50·58	49·06	48·18	47·97	7	71·02	63·10	56·21	52·47	49·87
8	54·52	51·31	49·24	48·27	48·00	8	66·45	63·54	56·75	52·77	49·95
9	53·35	52·47	49·50	48·38	48·04	9	67·59	62·65	57·25	53·11	50·04
10	54·23	52·20	49·80	48·52	48·11	10	65·16	62·85	57·60	53·42	50·11
11	54·99	52·63	50·04	48·65	48·15	11	64·85	62·74	57·85	53·74	50·18
12	57·00	53·56	50·32	48·83	48·22	12	67·28	63·19	58·06	54·01	50·27
13	55·45	53·62	50·61	48·97	48·25	13	67·15	63·82	58·33	54·28	50·38
14	55·51	53·62	50·92	49·15	48·31	14	62·58	63·36	58·59	54·52	50·49
15	55·09	53·44	51·13	49·33	48·36	15	66·58	62·04	58·82	54·79	50·63
16	55·89	53·37	51·26	49·51	48·40	16	66·76	63·12	58·87	55·02	50·74
17	54·70	53·35	51·39	49·68	48·47	17	70·56	64·00	59·05	55·22	50·86
18	56·77	53·74	51·49	49·84	48·54	18	68·47	65·12	59·29	55·36	50·99
19	55·20	54·19	51·64	49·95	48·60	19	65·82	64·06	59·61	55·60	51·08
20	56·35	54·03	51·80	50·09	48·67	20	64·81	63·66	59·81	55·83	51·21
21	55·56	54·21	51·93	50·20	48·74	21	66·07	63·07	59·88	56·03	51·33
22	54·97	54·46	52·05	50·31	48·79	22	65·73	63·23	59·90	56·21	51·46
23	56·89	54·05	52·20	50·43	48·87	23	64·24	63·14	59·95	56·35	51·58
24	56·07	54·45	52·30	50·56	48·94	24	63·86	62·73	59·95	56·50	51·71
25	54·12	54·55	52·39	50·67	48·99	25	62·94	62·55	59·92	56·61	51·82
26	52·25	53·44	52·50	50·79	49·08	26	66·22	62·29	59·90	56·71	51·94
27	51·21	52·52	52·47	50·88	49·10	27	70·74	63·84	59·85	56·80	52·05
28	51·24	52·36	52·36	50·99	49·19	28	65·98	64·18	60·03	56·89	52·16
29	54·43	52·88	52·23	51·06	49·26	29	66·34	64·02	60·22	56·95	52·25
30	58·08	53·89	52·21	51·08	49·33	30	65·80	63·90	60·35	57·00	52·36
31	62·31	55·44	52·38	51·08	49·39						
Means	54·34	52·73	50·81	49·42	48·48	Means	66·78	62·67	58·03	54·53	50·78

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1899.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1899.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
July	°	°	°	°	°	Aug.	°	°	°	°	°
1	64·08	63·68	60·46	57·16	52·47	1	74·25	68·92	63·99	60·46	55·17
2	61·66	62·82	60·53	57·25	52·57	2	73·65	69·10	64·24	60·55	55·24
3	59·86	61·83	60·44	57·38	52·65	3	74·08	69·49	64·47	60·64	55·33
4	61·66	61·18	60·28	57·45	52·75	4	71·83	70·03	64·69	60·76	55·40
5	65·86	61·43	60·06	57·51	52·84	5	72·28	69·84	64·96	60·91	55·49
6	68·83	62·71	59·95	57·51	52·93	6	70·48	69·87	65·12	61·03	55·58
7	70·34	63·82	60·01	57·51	53·02	7	68·90	68·92	65·28	61·21	55·67
8	70·11	65·05	60·22	57·52	53·11	8	67·87	67·69	65·28	61·38	55·74
9	69·08	65·44	60·57	57·56	53·19	9	65·97	67·33	65·19	61·48	55·83
10	67·73	65·75	60·91	57·67	53·26	10	67·84	66·79	65·03	61·57	55·92
11	70·84	65·28	61·20	57·79	53·35	11	69·76	67·14	64·87	61·65	56·01
12	70·57	66·56	61·38	57·92	53·42	12	69·85	67·62	64·80	61·66	56·08
13	69·76	66·25	61·65	58·08	53·51	13	68·76	68·00	64·78	61·66	56·17
14	68·14	66·09	61·90	58·23	53·58	14	70·38	68·29	64·85	61·70	56·26
15	68·40	65·89	62·02	58·39	53·64	15	71·55	68·32	64·90	61·74	56·32
16	68·18	65·59	62·13	58·53	53·71	16	70·16	67·80	65·01	61·75	56·41
17	70·63	66·13	62·20	58·68	53·80	17	68·09	67·51	65·01	61·81	56·48
18	72·18	66·85	62·33	58·78	53·89	18	67·14	67·17	64·99	61·90	56·57
19	74·89	66·58	62·55	58·91	53·98	19	67·06	66·51	64·92	61·97	56·64
20	75·29	68·14	62·80	59·05	54·07	20	68·47	66·36	64·78	61·97	56·71
21	73·44	68·88	63·09	59·18	54·16	21	68·72	66·76	64·65	61·97	56·77
22	70·81	69·31	63·41	59·36	54·23	22	68·70	66·92	64·62	61·95	56·84
23	67·77	68·13	63·72	59·52	54·34	23	69·42	67·28	64·63	61·99	56·91
24	66·61	66·54	63·82	59·68	54·43	24	70·36	67·51	64·67	61·97	56·98
25	68·45	65·71	63·72	59·88	54·50	25	70·30	67·91	64·74	61·97	57·04
26	70·29	66·67	63·55	60·01	54·61	26	71·33	68·23	64·85	61·99	57·09
27	70·18	67·03	63·55	60·10	54·70	27	69·58	68·63	64·96	62·02	57·13
28	69·40	66·65	63·59	60·17	54·81	28	69·53	68·34	65·08	62·08	57·16
29	70·75	66·87	63·63	60·22	54·90	29	64·80	66·92	65·17	62·11	57·24
30	71·28	67·50	63·66	60·30	54·99	30	66·13	65·91	65·08	62·20	57·31
31	75·24	68·29	63·77	60·39	55·09	31	63·82	65·57	64·90	62·28	57·34
Means	69·11	65·76	62·04	58·64	53·76	Means	69·39	67·83	64·86	61·62	56·35

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1899.	Depth.					1899.	Depth.				
	I.	II.	III.	IV.	V.		I.	II.	III.	IV.	V.
	ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½		ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½
Sept.	°	°	°	°	°	Oct.	°	°	°	°	°
1	62·55	64·58	64·65	62·26	57·40	1	48·97	54·25	58·26	59·20	57·74
2	63·55	64·15	64·40	62·26	57·47	2	51·31	53·98	57·81	59·02	57·70
3	62·13	63·75	64·09	62·20	57·51	3	50·43	53·47	57·45	58·78	57·65
4	65·77	64·00	63·82	62·15	57·56	4	52·99	53·96	57·09	58·55	57·60
5	67·93	64·85	63·66	62·06	57·61	5	51·82	54·10	56·82	58·33	57·56
6	67·12	66·06	63·63	61·97	57·67	6	...	53·26	56·62	58·12	57·49
7	67·03	66·00	63·72	61·90	57·69	7	49·12	52·30	56·41	57·92	57·43
8	67·96	65·89	63·81	61·86	57·72	8	47·59	51·62	56·08	57·72	57·38
9	63·10	65·26	63·86	61·84	57·76	9	48·27	51·19	55·71	57·49	57·31
10	61·14	64·11	63·86	61·88	57·78	10	48·04	50·99	55·36	57·27	57·25
11	59·74	62·73	63·63	61·83	57·79	11	48·79	51·26	55·08	57·06	57·16
12	62·13	62·69	63·32	61·81	57·83	12	51·98	51·98	54·84	56·86	57·11
13	61·95	63·10	63·07	61·75	57·85	13	49·33	52·27	54·75	56·66	57·04
14	62·11	62·94	62·85	61·66	57·88	14	47·37	51·01	54·68	56·44	56·95
15	62·64	62·46	62·73	61·56	57·90	15	45·75	50·05	54·48	56·28	56·86
16	60·53	62·40	62·58	61·48	57·92	16	45·57	49·50	54·14	56·10	56·80
17	58·68	61·38	62·44	61·38	57·94	17	48·00	49·60	53·82	55·96	56·71
18	58·64	61·11	62·17	61·32	57·96	18	47·46	49·84	53·55	55·76	56·64
19	57·54	60·42	61·93	61·21	57·96	19	46·00	49·33	53·37	55·56	56·55
20	56·16	59·79	61·63	61·11	57·96	20	44·62	48·79	53·15	55·36	56·48
21	55·31	58·57	61·32	61·00	57·96	21	44·37	48·25	52·92	55·18	56·39
22	56·52	58·71	60·94	60·84	57·96	22	45·90	48·25	52·61	55·04	56·32
23	54·48	58·10	60·62	60·67	57·94	23	46·76	48·79	52·38	54·82	56·23
24	54·10	57·36	60·28	60·49	57·94	24	48·79	49·15	52·25	54·64	56·16
25	56·16	57·54	59·95	60·35	57·92	25	48·78	49·86	52·16	54·46	56·07
26	55·76	57·79	59·65	60·12	57·90	26	49·91	50·20	52·20	54·32	55·98
27	54·23	57·31	59·43	59·92	57·87	27	52·61	51·02	52·25	54·19	55·90
28	53·08	56·48	59·20	59·72	57·83	28	54·27	52·54	52·34	54·07	55·81
29	51·49	55·62	58·91	59·54	57·81	29	53·64	52·75	52·59	53·91	55·71
30	51·06	55·26	58·60	59·40	57·78	30	52·27	53·02	52·83	53·83	55·56
						31	49·03	51·84	53·01	53·83	55·47
Means	59·69	61·35	62·16	61·25	57·80	Means	48·99	51·24	54·42	56·22	56·74

Oct. 6. The 6½ inch thermometer was restandardized.
Oct. 27. The values have been obtained by substracting 0·13 from the original readings, which apparently were in error by that quantity.

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1899.	Depth.					1899.	Depth.				
	I.	II.	III.	IV.	V.		I.	II.	III.	IV.	V.
	ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½		ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½
Nov.	°	°	°	°	°	Dec.	°	°	°	°	°
1	48·06	50·76	53·01	53·83	55·38	1	44·71	45·75	48·90	50·92	53·55
2	51·40	50·52	52·84	53·89	55·35	2	42·98	46·00	48·74	50·83	53·47
3	51·40	51·53	52·63	53·85	55·24	3	39·04	44·85	48·60	50·74	53·40
4	51·28	51·49	52·66	53·82	55·22	4	41·43	43·71	48·51	50·67	53·33
5	53·60	52·41	52·65	53·74	55·15	5	44·73	44·51	47·98	50·54	53·28
6	51·82	52·48	52·74	53·64	55·04	6	46·24	45·66	47·82	50·38	53·17
7	49·15	51·55	52·83	53·60	54·97	7	46·47	46·56	47·80	50·25	53·10
8	50·59	51·21	52·79	53·58	54·93	8	43·25	46·35	47·97	50·13	53·02
9	48·63	50·72	52·65	53·55	54·82	9	39·04	44·53	48·02	50·04	52·95
10	50·45	50·43	52·47	53·55	54·79	10	36·57	42·80	47·80	50·00	52·90
11	48·07	50·29	52·23	53·44	54·72	11	35·96	41·52	47·43	49·91	52·83
12	46·35	49·53	52·11	53·37	54·66	12	35·49	40·66	46·87	49·78	52·75
13	47·26	49·05	51·87	53·26	54·61	13	36·19	40·21	46·36	49·62	52·66
14	46·99	49·01	51·66	53·19	54·57	14	35·19	39·88	45·88	49·39	52·61
15	45·25	48·76	51·48	53·08	54·54	15	34·72	39·38	45·48	49·14	52·56
16	46·56	48·38	51·24	52·95	54·48	16	34·47	38·91	45·07	48·92	52·48
17	45·23	48·00	51·06	52·84	54·43	17	34·29	38·57	44·67	48·65	52·41
18	42·15	47·23	50·86	52·72	54·37	18	34·65	38·30	44·29	48·40	52·29
19	39·74	45·84	50·61	52·61	54·36	19	35·73	38·30	43·99	48·11	52·21
20	41·14	44·80	50·20	52·48	54·27	20	35·85	38·44	43·70	47·86	52·11
21	42·91	45·10	49·73	52·30	54·23	21	36·70	38·66	43·48	47·62	52·02
22	43·95	45·48	49·39	52·12	54·19	22	36·59	38·88	43·30	47·39	51·89
23	44·76	45·91	49·17	51·89	54·10	23	37·18	38·93	43·18	47·16	51·78
24	45·43	46·22	49·03	51·67	54·05	24	38·43	39·43	43·14	46·99	51·71
25	45·95	46·51	48·99	51·51	53·98	25	37·83	39·78	43·07	46·85	51·62
26	45·93	46·85	48·96	51·39	53·92	26	37·49	40·35	43·12	46·67	51·48
27	46·44	46·87	48·99	51·26	53·85	27	35·98	39·27	43·05	46·54	51·39
28	45·63	47·05	48·99	51·15	53·76	28	34·74	38·55	42·96	46·40	51·28
29	45·48	46·78	49·01	51·06	53·67	29	39·70	38·89	42·80	46·33	51·19
30	42·19	46·49	48·99	50·99	53·62	30	40·15	40·24	42·67	46·17	51·04
						31	37·08	40·15	42·76	46·04	50·92
Means	46·79	48·57	51·06	52·74	54·51	Means	38·35	41·23	45·46	48·66	52·37

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1900.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1900.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Jan.	°	°	°	°	°	Feb.	°	°	°	°	°
1	36·99	39·56	42·82	45·93	50·81	1	37·18	39·76	42·53	44·67	48·40
2	41·00	39·78	42·82	45·86	50·74	2	35·74	39·11	42·42	44·62	48·36
3	40·80	40·86	42·71	45·75	50·63	3	35·85	38·64	42·28	44·55	48·34
4	40·48	41·16	42·84	45·72	50·56	4	35·80	38·32	42·08	44·62	48·31
5	38·93	40·75	42·96	45·64	50·43	5	35·55	38·03	41·86	44·46	48·27
6	37·98	40·37	43·02	45·55	50·34	6	35·11	37·80	41·63	44·31	48·20
7	39·79	40·35	42·98	45·55	50·23	7	34·12	37·45	41·40	44·22	48·18
8	38·88	40·05	42·87	45·46	50·07	8	33·58	36·91	41·22	44·10	48·11
9	40·87	40·73	42·82	45·41	49·95	9	33·21	36·54	40·96	43·97	48·07
10	38·86	40·59	42·82	45·30	49·82	10	32·99	36·19	40·73	43·83	48·02
11	36·99	39·96	42·82	45·25	49·69	11	32·95	35·94	40·44	43·65	47·98
12	37·44	39·51	42·78	45·23	49·60	12	32·92	35·76	40·23	43·52	47·89
13	37·22	39·36	42·64	45·18	49·53	13	32·83	35·64	40·06	43·41	47·84
14	36·09	39·13	42·49	45·16	49·51	*14	32·83	35·51	39·90	43·25	47·80
15	37·40	38·53	42·33	45·05	49·41	15	32·81	35·42	39·69	43·11	47·71
16	38·41	39·15	42·21	45·00	49·35	16	32·79	35·13	39·45	42·93	47·37
17	39·79	39·61	42·13	44·89	49·28	17	33·98	34·99	39·04	42·60	46·96
18	37·65	39·81	42·12	44·78	49·19	18	34·77	35·69	38·75	42·24	46·83
19	37·11	39·13	42·12	44·73	49·14	19	40·32	37·02	38·66	41·99	46·72
20	39·42	39·83	42·08	44·67	49·08	20	39·38	38·71	38·77	41·79	46·60
21	36·93	39·79	42·08	44·64	49·03	21	37·04	38·30	39·13	41·68	46·60
22	40·17	40·12	42·10	44·60	48·97	22	39·49	38·23	39·36	41·67	46·49
23	41·92	40·89	42·13	44·53	48·88	23	42·80	39·43	39·51	41·65	46·42
24	43·56	41·86	42·26	44·51	48·83	24	45·18	41·29	39·79	41·68	46·38
25	41·56	42·12	42·49	44·47	48·76	25	46·22	42·67	40·30	41·77	46·38
26	42·46	42·06	42·75	44·49	48·72	26	46·17	43·61	40·86	41·85	46·35
27	40·19	42·08	42·91	44·53	48·63	27	46·15	43·95	41·45	42·01	46·29
28	38·12	41·18	43·00	44·60	48·60	28	43·45	43·84	41·92	42·17	46·26
29	37·58	40·33	42·98	44·65	48·54						
30	37·90	39·96	42·85	44·69	48·49						
31	37·99	39·81	42·69	44·67	48·45						
Means	39·05	40·27	42·60	45·05	49·46	Means	37·19	38·21	40·52	43·08	47·40

* Heavy snow.

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1900.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1900.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Mar.	°	°	°	°	°	Apr.	°	°	°	°	°
1	41·50	42·75	42·28	42·44	46·22	1	38·97	40·37	41·83	43·43	46·13
2	39·09	41·65	42·42	42·62	46·18	2	40·68	40·69	41·86	43·41	46·11
3	39·60	41·02	42·39	42·82	46·15	3	42·39	41·05	41·90	43·34	46·09
4	39·96	41·11	42·28	42·96	46·17	4	43·43	41·77	42·01	43·36	46·08
5	40·03	40·95	42·19	43·07	46·15	5	44·42	42·69	42·21	43·38	46·06
6	39·76	40·93	42·15	43·14	46·15	6	43·54	42·76	42·42	43·41	46·06
7	38·80	40·53	42·12	43·16	46·20	7	43·43	43·20	42·69	43·47	46·06
8	38·89	40·37	42·08	43·23	46·22	8	42·60	42·93	42·87	43·56	46·04
9	38·79	40·19	41·97	43·25	46·22	9	43·63	42·71	43·00	43·65	46·04
10	41·07	40·42	41·92	43·27	46·24	10	44·28	43·30	43·09	43·77	46·04
11	40·41	41·22	41·92	43·27	46·27	11	46·58	44·02	43·25	43·83	46·00
12	41·49	41·43	41·99	43·30	46·29	12	46·38	44·58	43·45	43·90	45·99
13	42·24	41·76	42·12	43·30	46·27	13	46·71	45·23	43·66	43·97	46·02
14	41·32	41·54	42·22	43·32	46·26	14	47·62	45·45	43·95	44·08	46·02
15	42·58	41·74	42·30	43·38	46·26	15	48·25	46·35	44·24	44·20	46·02
16	41·70	41·94	42·37	43·38	46·24	16	46·72	46·20	44·58	44·37	46·06
17	39·45	41·45	42·48	43·47	46·24	17	45·82	45·93	44·82	44·51	46·04
18	37·26	40·57	42·49	43·52	46·24	18	47·93	45·86	44·98	44·64	46·04
19	38·30	39·83	42·40	43·56	46·20	19	49·91	47·01	45·12	44·78	46·09
20	39·83	40·15	42·22	43·59	46·22	20	51·76	48·16	45·37	44·91	46·09
21	39·34	40·51	42·12	43·57	46·20	21	52·68	48·99	45·79	45·07	46·15
22	40·60	40·93	42·08	43·56	46·18	22	53·89	50·02	46·24	45·25	46·20
23	40·78	41·16	42·12	43·54	46·18	23	54·45	51·06	46·74	45·41	46·24
24	38·97	40·77	42·17	43·52	46·18	24	54·10	51·49	47·25	45·66	46·24
25	38·66	40·30	42·21	43·54	46·15	25	52·18	51·67	47·75	45·95	46·29
26	38·34	40·06	42·10	43·50	46·18	26	50·34	49·98	48·15	46·18	46·35
27	38·64	39·85	41·99	43·56	46·17	27	48·99	49·68	48·33	46·49	46·38
28	39·42	40·05	41·92	43·52	46·18	28	52·70	49·05	48·38	46·71	46·47
29	39·06	39·81	41·92	43·47	46·15	29	50·56	50·22	48·36	46·94	46·54
30	39·47	40·03	41·83	43·45	46·13	30	52·99	50·14	48·49	47·12	46·63
31	38·93	40·14	41·83	43·43	46·13						
Means	39·82	40·81	42·15	43·31	46·20	Means	47·60	46·09	44·76	44·63	46·15

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1900.	Depth.					1900.	Depth.				
	I.	II.	III.	IV.	V.		I.	II.	III.	IV.	V.
	ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½		ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½
May	°	°	°	°	°	June	°	°	°	°	°
1	54·30	50·54	48·60	47·25	46·67	1	55·69	55·26	52·84	50·77	48·81
2	54·93	50·94	48·78	47·41	46·74	2	54·73	54·84	52·90	50·94	48·88
3	53·78	51·93	48·99	47·52	46·83	3	59·47	54·79	53·06	51·10	49·01
4	52·03	51·37	49·24	47·66	46·90	4	59·56	56·17	53·10	51·21	49·06
5	54·27	51·40	49·44	47·80	46·99	5	59·86	57·09	53·31	51·31	49·12
6	53·35	51·98	49·57	47·98	47·03	6	61·74	57·54	53·65	51·55	49·23
7	57·18	52·36	49·71	48·13	47·12	7	62·19	58·46	53·92	51·53	49·26
8	54·84	52·93	49·83	48·27	47·21	8	60·58	58·53	54·30	51·73	49·35
9	53·89	53·22	50·18	48·42	47·26	9	60·73	58·21	54·63	51·94	49·46
10	52·02	52·50	50·40	48·58	47·35	10	61·70	58·17	54·93	52·12	49·53
11	53·02	51·76	50·49	48·69	47·43	11	66·72	59·72	55·04	52·36	49·59
12	53·58	52·90	50·52	48·88	47·53	12	69·48	61·27	55·40	52·48	49·68
13	52·39	52·50	50·65	49·01	47·59	13	64·53	62·13	55·83	52·70	49·75
14	50·02	51·40	50·70	49·08	47·66	14	62·69	60·85	56·37	52·90	49·80
15	50·38	50·74	50·63	49·21	47·73	15	62·69	60·39	56·66	53·20	49·89
16	51·62	50·74	50·47	49·32	47·82	16	61·50	60·08	56·80	53·46	50·00
17	53·19	51·19	50·40	49·35	47·89	17	63·21	60·28	56·89	53·69	50·09
18	55·06	52·75	50·40	49·39	47·97	18	65·28	60·89	56·97	53·82	50·18
19	54·21	52·70	50·59	49·41	48·04	19	66·45	61·97	57·15	54·03	50·29
20	54·66	52·75	50·77	49·46	48·09	20	67·10	62·42	57·47	54·19	50·41
21	56·21	53·56	50·95	49·62	48·20	21	63·73	62·58	57·72	54·32	50·47
22	54·91	53·64	51·15	49·66	48·24	22	62·85	61·32	57·88	54·43	50·58
23	54·34	53·13	51·31	49·77	48·31	23	62·87	60·98	58·01	54·55	50·70
24	54·81	53·42	51·44	49·87	48·36	24	62·64	61·03	58·06	54·86	50·83
25	54·64	53·53	51·58	49·95	48·42	25	60·12	60·31	58·06	54·91	50·90
26	53·31	53·37	51·66	50·11	48·49	26	59·25	59·68	57·97	55·09	51·01
27	57·79	54·23	51·75	50·18	48·52	27	57·96	58·93	57·83	55·17	51·13
28	59·58	55·45	51·89	50·31	48·60	28	61·36	58·77	57·61	55·17	51·22
29	57·87	55·76	52·18	50·36	48·67	29	65·70	60·35	57·52	55·29	51·33
30	57·97	55·49	52·48	50·50	48·72	30	63·66	60·96	57·60	55·26	51·42
31	56·57	55·63	52·72	50·65	48·79						
Means	54·41	52·77	50·63	49·09	47·78	Means	62·20	59·47	55·98	53·20	50·03

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1900.	Depth, I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1900.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
July	°	°	°	°	°	Aug.	°	°	°	°	°
1	62·55	60·87	57·74	55·35	51·49	1	66·34	67·15	63·75	59·85	54·09
2	62·17	60·64	57·90	55·42	51·58	2	65·68	65·95	63·77	59·95	54·21
3	62·82	60·48	57·94	55·45	51·67	3	65·10	65·17	63·59	60·01	54·34
4	63·57	60·69	57·97	55·49	51·73	4	61·97	63·70	63·43	60·10	54·43
5	63·52	61·47	58·08	55·63	51·82	5	59·88	62·85	63·07	60·57	54·54
6	64·26	61·75	58·19	55·63	51·89	6	58·46	61·79	62·64	60·10	54·63
7	62·15	61·18	58·33	55·71	51·94	7	59·86	60·66	62·15	60·10	54·75
8	62·38	60·91	58·42	55·81	52·03	8	61·27	61·23	61·74	60·13	54·90
9	64·15	61·21	58·46	55·94	52·11	9	60·04	61·48	61·39	59·97	55·04
10	65·46	61·21	58·50	55·99	52·20	10	59·50	60·46	61·18	59·86	55·09
11	67·84	62·82	58·57	56·03	52·21	11	61·45	59·94	60·91	59·70	55·18
12	71·67	64·17	58·82	56·07	52·27	12	64·74	61·23	60·66	59·58	55·24
13	69·62	65·03	59·20	56·12	52·36	13	68·00	62·76	60·55	59·38	55·31
14	68·90	65·26	59·67	56·41	52·45	14	68·16	64·08	60·76	59·40	55·36
15	67·17	64·65	60·04	56·52	52·52	15	67·23	64·72	61·03	59·27	55·36
16	68·83	64·98	60·30	56·70	52·56	16	67·26	64·71	61·21	59·11	55·44
17	69·17	65·12	60·51	56·91	52·63	17	67·17	65·12	61·56	59·34	55·44
18	70·30	65·93	60·78	57·09	52·70	18	70·20	65·57	61·75	59·31	55·49
19	72·81	66·56	60·89	57·16	52·77	19	69·60	66·06	61·95	59·36	55·51
20	72·97	67·82	61·39	57·36	52·86	20	67·46	66·18	62·19	59·43	55·49
21	69·39	67·35	61·84	57·56	52·92	21	68·14	65·91	62·44	59·54	55·53
22	68·67	66·69	62·08	57·79	52·99	22	67·59	65·32	62·56	59·68	55·56
23	71·20	66·92	62·19	57·97	53·10	23	64·56	64·35	62·58	59·79	55·62
24	73·92	67·78	62·35	58·21	53·19	24	64·15	63·88	62·53	59·94	55·65
25	73·65	68·56	62·60	58·41	53·31	25	62·44	63·34	62·38	59·99	55·71
26	73·87	69·31	62·89	58·80	53·44	26	61·92	63·14	62·22	59·97	55·74
27	72·70	69·22	63·30	58·82	53·49	27	61·16	62·46	62·02	59·95	55·80
28	68·74	68·34	63·61	59·00	53·64	28	60·03	61·52	61·75	59·94	55·85
29	69·62	67·64	63·77	59·29	53·71	29	60·49	61·12	61·52	59·90	55·90
30	69·08	67·41	63·77	59·52	53·91	30	62·15	61·39	61·25	59·86	55·94
31	69·30	67·10	63·79	59·83	54·00	31	63·12	61·75	61·07	59·77	55·98
Means	68·14	64·81	60·45	57·03	52·63	Means	64·04	63·39	61·99	59·77	55·26

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1900.	Depth.					1900.	Depth.				
	I.	II.	III.	IV.	V.		I.	II.	III.	IV.	V.
	ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½		ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½
Sept.	°	°	°	°	°	Oct.	°	°	°	°	°
1	63·16	62·26	61·00	59·72	56·05	1	54·72	57·65	59·07	58·53	56·28
2	60·37	61·93	60·98	59·61	56·05	2	54·82	57·25	58·82	58·50	56·30
3	58·86	60·91	60·93	59·56	56·07	3	55·29	56·97	58·55	58·35	56·30
4	58·64	60·17	60·78	59·52	56·10	4	52·43	56·07	58·35	58·28	56·32
5	59·41	59·70	60·58	59·47	56·14	5	52·74	55·40	58·08	58·19	56·30
6	59·67	59·94	60·35	59·43	56·17	6	53·53	55·04	57·72	58·06	56·30
7	60·30	60·08	60·15	59·32	56·19	7	57·43	55·76	57·43	57·94	56·32
8	61·81	60·57	60·04	59·25	56·21	8	57·36	56·61	57·25	57·76	56·30
9	60·64	60·71	60·04	59·18	56·23	9	57·90	57·07	57·24	57·60	56·26
10	60·28	60·48	60·03	59·09	56·25	10	57·88	57·74	57·25	57·49	56·23
11	59·90	60·24	60·01	59·05	56·25	11	53·92	56·61	57·34	57·42	56·23
12	58·53	59·99	59·95	59·02	56·26	12	54·09	55·81	57·27	57·31	56·19
13	58·84	59·88	59·85	58·95	56·26	13	53·01	55·56	57·13	57·27	56·16
14	58·95	59·99	59·77	58·89	56·26	14	50·90	54·90	56·95	57·20	56·12
15	60·80	60·22	59·72	58·87	56·26	15	48·45	53·29	56·66	57·07	56·08
16	61·68	60·66	59·70	58·82	56·28	16	47·55	52·47	56·32	57·02	56·05
17	62·15	61·16	59·76	58·80	56·28	17	51·08	52·21	55·90	56·84	56·01
18	61·74	61·18	59·83	58·77	56·28	18	51·48	52·97	55·53	56·68	55·98
19	59·40	60·89	59·92	58·77	56·30	19	50·67	52·83	55·35	56·53	55·96
20	59·52	60·44	59·90	58·75	56·25	20	50·34	53·01	55·17	56·35	55·94
21	60·71	60·15	59·88	58·77	56·26	21	47·62	52·36	55·02	56·17	55·87
22	61·92	60·82	59·85	58·78	56·28	22	45·88	51·10	54·82	56·01	55·85
23	62·62	61·39	59·83	58·75	56·28	23	49·08	50·79	54·52	55·90	55·81
24	61·21	61·20	59·90	58·75	56·30	24	51·17	51·53	54·21	55·71	55·74
25	59·00	60·24	59·99	58·75	56·28	25	53·22	52·57	54·03	55·54	55·71
26	57·69	59·65	59·88	58·75	56·28	26	49·55	52·47	54·01	55·40	55·67
27	58·89	59·47	59·74	58·77	56·32	27	46·45	51·08	54·03	55·27	55·62
28	58·12	59·22	59·58	58·71	56·28	28	45·12	50·04	53·82	55·15	55·54
29	57·81	58·82	59·47	58·66	56·30	29	48·56	50·07	53·55	55·06	55·49
30	55·94	58·62	59·31	58·60	56·30	30	48·72	50·25	53·24	54·90	55·42
						31	51·66	50·79	53·06	54·73	55·38
Means	59·95	60·37	60·02	59·00	56·23	Means	51·70	53·82	56·05	56·78	55·99

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1900.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1900.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Nov.	°	°	°	°	°	Dec.	°	°	°	°	°
1	53·22	51·89	52·93	54·57	55·31	1	43·90	45·66	48·54	50·85	53·42
2	52·90	52·59	53·01	54·43	55·26	2	43·02	45·46	48·42	50·74	53·35
3	52·75	52·83	53·15	54·30	55·20	3	42·85	45·03	48·27	50·61	53·26
4	51·87	52·66	53·20	54·21	55·11	4	46·24	45·52	48·13	50·49	43·17
5	52·11	52·54	53·28	54·16	55·06	5	47·23	46·45	48·07	50·38	53·08
6	51·98	52·59	53·31	54·12	55·00	6	47·46	47·21	48·15	50·27	52·99
7	51·49	52·47	53·33	54·10	54·93	7	45·70	47·01	48·27	50·25	52·95
8	48·56	51·76	53·31	54·07	54·88	8	46·36	46·65	48·38	50·20	52·86
9	49·96	51·10	53·19	54·05	54·84	9	48·61	47·37	48·38	50·13	52·79
10	46·65	50·38	53·02	54·00	54·79	10	44·55	47·41	48·47	50·11	52·72
11	42·57	48·83	52·84	53·98	54·72	11	44·20	46·20	48·51	50·05	52·63
12	43·59	47·61	52·41	53·85	54·66	12	47·12	46·54	48·42	50·05	52·57
13	48·61	48·11	51·93	53·73	54·63	13	48·83	47·59	48·38	50·02	52·50
14	46·78	48·65	51·60	53·56	54·57	14	44·96	47·19	48·47	50·00	52·43
15	46·44	48·24	51·44	53·38	54·54	15	46·53	46·87	48·47	49·93	52·36
16	45·81	48·04	51·31	53·26	54·50	16	43·70	46·67	48·45	49·93	52·34
17	46·25	47·97	51·10	53·08	54·43	17	45·36	46·29	48·42	49·89	52·27
18	43·52	47·52	50·94	52·95	54·37	18	45·66	46·24	48·25	49·84	52·20
19	42·89	46·58	50·68	52·79	54·32	19	43·63	46·45	48·18	49·78	52·14
20	42·30	45·86	50·41	52·65	54·25	20	45·34	45·77	48·15	49·78	52·11
21	43·61	45·70	50·07	52·48	54·19	21	44·67	46·44	48·07	49·77	52·09
22	43·61	45·88	49·78	52·30	54·10	22	41·34	45·45	48·20	49·64	52·03
23	41·83	45·48	49·57	52·12	54·05	23	38·55	44·17	48·09	49·64	52·00
24	41·29	44·76	49·32	51·93	53·98	24	39·31	43·02	47·57	49·55	51·94
25	44·13	44·94	49·08	51·76	53·91	25	43·50	43·20	47·17	49·48	51·91
26	45·27	45·75	48·83	51·55	53·82	26	45·30	44·71	46·92	49·35	51·85
27	44·82	46·24	48·76	51·39	53·76	27	45·82	45·23	46·83	49·17	51·80
28	44·51	45·97	48·76	51·24	53·67	28	44·80	45·75	46·92	49·05	51·76
29	44·49	45·95	48·70	51·10	53·60	29	41·05	44·78	47·01	48·96	51·69
30	44·01	45·73	48·63	50·97	53·51	30	42·60	44·08	46·94	48·87	51·64
						31	42·94	44·55	46·74	48·78	51·53
Means	46·59	48·49	51·26	53·07	54·47	Means	44·55	45·84	47·98	49·86	52·40

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1901.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1901.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Jan.	°	°	°	°	°	Feb.	°	°	°	°	°
1	41·18	43·93	46·54	48·56	51·31	1	34·92	38·84	43·23	45·61	49·12
2	39·29	43·07	46·36	48·40	51·15	2	35·29	38·37	42·87	45·50	49·05
3	38·08	42·12	46·17	48·33	51·10	3	36·12	38·53	42·60	45·37	49·03
4	39·22	41·74	45·88	48·22	51·04	4	35·20	38·59	42·39	45·25	48·96
5	37·00	41·27	45·61	48·13	51·01	5	35·62	38·23	42·22	45·12	48·92
6	35·49	40·37	45·28	47·93	50·94	6	35·53	38·01	42·03	44·98	48·87
7	34·72	39·45	44·94	47·80	50·90	7	34·77	37·80	41·85	44·87	48·81
8	34·50	38·86	44·51	47·61	50·81	*8	...	37·45	41·67	44·74	48·76
9	34·56	38·46	44·10	47·44	50·79	9	36·82	37·78	41·45	44·60	48·70
10	36·27	38·32	43·77	47·23	50·72	10	37·74	38·35	41·31	44·46	48·65
11	38·66	39·07	43·39	46·99	50·67	11	37·98	38·86	41·29	44·28	48·56
12	37·65	39·56	43·27	46·78	50·59	12	35·04	38·52	41·34	44·20	48·51
13	38·82	39·74	43·20	46·60	50·52	13	34·25	37·62	41·36	44·11	48·43
14	37·62	40·15	43·12	46·40	50·41	14	33·71	37·09	41·22	44·04	48·34
15	35·40	39·43	43·14	46·27	50·38	15	33·53	36·66	40·98	43·93	48·27
16	34·57	38·53	43·03	46·18	50·29	16	33·53	36·45	40·78	43·86	48·22
17	39·92	38·93	42·84	46·04	50·20	17	34·77	36·54	40·60	43·75	48·15
18	41·31	40·44	42·69	45·88	50·09	18	34·95	36·84	40·44	43·63	48·07
19	41·52	41·22	42·78	45·79	50·04	19	35·38	36·93	40·32	43·52	48·00
20	40·30	41·52	42·93	45·66	49·93	20	35·42	37·26	40·30	43·38	47·93
21	42·85	41·81	43·12	45·61	49·84	21	34·47	37·13	40·26	43·25	47·84
22	44·19	42·84	43·30	45·59	49·77	22	36·97	37·22	40·23	43·20	47·77
23	40·46	43·11	43·50	45·57	49·69	23	38·08	37·99	40·19	43·11	47·70
24	41·77	42·48	43·72	45·09	49·60	24	38·55	38·64	40·24	43·05	47·64
25	40·48	42·51	43·81	45·61	49·55	25	39·67	39·13	40·39	42·98	47·55
26	39·34	41·94	43·90	45·64	49·44	26	40·24	39·74	40·57	42·96	47·50
27	42·98	42·01	43·84	45·64	49·41	27	41·32	40·08	40·82	42·96	47·44
28	40·01	42·28	43·83	45·68	49·32	28	41·43	40·66	41·04	43·00	47·37
29	37·04	41·20	43·88	45·68	49·28						
30	36·16	40·12	43·75	45·68	49·21						
31	35·44	39·47	43·50	45·63	49·15						
Means	38·61	40·84	43·99	46·57	50·23	Means	36·34	38·05	41·21	44·06	48·29

* Thermometer I, dug up on Feb. 7 for standardization, had not been replaced. The mean for the month is the simple mean of the figures as printed.

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1901.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1901.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Mar.	°	°	°	°	°	Apr.	°	°	°	°	°
1	42·87	41·04	41·25	43·00	47·30	1	41·81	40·82	41·52	43·56	46·65
2	40·93	41·27	41·45	43·05	47·23	2	41·58	41·07	41·72	43·48	46·63
3	40·77	41·40	41·70	43·16	47·21	3	45·91	42·04	41·88	43·47	46·60
4	40·08	40·95	41·86	43·23	47·17	4	46·99	43·57	42·15	43·48	46·60
5	44·74	41·88	41·90	43·29	47·10	5	43·27	43·74	42·49	43·50	46·56
6	42·15	42·24	42·08	43·34	47·05	6	42·58	43·23	42·87	43·59	46·53
7	42·19	41·94	42·33	43·45	47·05	7	47·21	43·90	43·02	43·68	46·51
8	41·74	42·06	42·48	43·54	47·03	8	48·24	45·54	43·27	43·77	46·49
9	40·55	41·68	42·51	43·59	46·99	9	48·43	45·70	43·68	43·88	46·47
10	39·16	41·38	42·62	43·68	46·98	10	46·63	45·88	44·01	44·01	46·44
11	40·12	41·13	42·57	43·72	46·94	11	45·93	45·70	44·31	44·17	46·44
12	41·77	41·41	42·53	43·77	46·92	12	45·21	45·46	44·53	44·35	46·44
13	42·19	42·42	42·55	43·79	46·90	13	44·17	44·92	44·65	44·47	46·45
14	41·09	41·99	42·73	43·88	46·92	14	44·15	44·47	44·71	44·64	46·44
15	40·75	41·79	42·76	43·86	46·89	15	46·00	44·73	44·67	44·74	46·47
16	41·32	41·58	42·80	43·92	46·89	16	44·67	44·62	44·67	44·80	46·47
17	41·34	41·59	42·80	43·97	46·85	17	46·51	44·58	44·73	44·85	46·51
18	41·99	42·12	42·78	43·97	46·83	18	48·56	45·59	44·73	44·92	46·51
19	40·30	41·68	42·85	44·01	46·83	19	50·79	46·58	44·92	45·00	46·54
20	39·22	41·14	42·87	44·02	46·83	20	50·72	47·52	45·16	45·10	46·54
21	39·13	40·60	42·75	44·02	46·80	21	52·36	48·33	45·52	45·18	46·56
22	38·30	40·32	42·66	44·04	46·80	22	54·12	49·37	45·95	45·32	46·62
23	39·63	40·23	42·49	44·02	46·76	23	55·69	50·32	46·54	45·52	46·63
24	39·33	40·28	42·40	43·99	46·78	24	57·72	51·84	47·05	45·64	46·65
25	38·91	40·78	42·33	43·95	46·76	25	56·16	52·43	47·66	45·90	46·69
26	37·02	40·03	42·33	43·92	46·76	26	55·71	52·54	48·22	46·15	46·72
27	36·68	39·36	42·21	43·90	46·74	27	53·71	52·20	48·70	46·44	46·76
28	35·56	38·79	42·03	43·86	46·72	28	51·42	51·69	48·99	46·67	46·80
29	35·46	38·57	41·85	43·83	46·71	29	52·45	50·94	49·21	47·05	46·85
30	39·52	38·80	41·59	43·70	46·67	30	50·47	50·90	49·28	47·23	46·90
31	41·41	39·99	41·47	43·61	46·67						
Means	40·20	40·98	42·31	43·71	46·91	Means	48·64	46·67	45·03	44·82	46·58

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1901.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1901.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
May	°	°	°	°	°	June	°	°	°	°	°
1	54·07	50·94	49·32	47·48	46·98	1	63·05	59·58	55·53	52·36	49·48
2	53·08	51·66	49·42	47·64	47·05	2	61·65	59·50	55·76	52·57	49·57
3	54·03	51·75	49·53	47·79	47·12	3	62·87	59·67	55·94	52·79	49·68
4	53·82	52·38	49·75	47·97	47·25	4	64·35	59·81	56·12	53·01	49·80
5	53·73	52·09	49·93	48·09	47·30	5	64·56	59·95	56·28	53·19	49·89
6	53·40	52·61	50·13	48·25	47·37	6	63·82	60·78	56·52	53·37	50·00
7	54·00	52·21	50·31	48·40	47·46	7	66·90	60·87	56·68	53·51	50·09
8	51·06	52·29	50·43	48·54	47·53	8	66·04	61·38	56·93	53·69	50·20
9	51·75	51·26	50·50	48·69	47·59	9	65·80	62·15	57·16	53·89	50·31
10	51·84	51·57	50·45	48·81	47·64	10	66·47	62·73	57·56	54·05	50·41
11	53·51	51·35	50·41	48·94	47·71	11	65·17	62·44	57·88	54·27	50·54
12	53·20	51·71	50·47	49·03	47·84	12	63·34	62·22	58·10	54·46	50·63
13	54·72	52·47	50·56	49·14	47·91	13	60·04	60·98	58·21	54·66	50·79
14	57·94	53·10	50·68	49·19	48·02	14	60·42	59·59	58·23	54·82	50·92
15	59·16	54·19	50·97	49·37	48·13	15	60·69	59·81	58·06	54·99	51·01
16	58·60	54·88	51·30	49·46	48·18	16	61·02	60·03	57·96	55·11	51·08
17	56·07	55·15	51·58	49·51	48·20	17	59·20	59·70	57·88	55·20	51·26
18	56·35	54·18	51·84	49·64	48·22	18	58·50	59·09	57·79	55·22	51·35
19	57·06	54·70	52·00	49·84	48·27	19	59·94	58·68	57·72	55·33	51·48
20	58·37	55·27	52·18	49·98	48·36	20	59·54	58·77	57·58	55·33	51·51
21	59·34	55·69	52·43	50·13	48·43	21	61·81	59·09	57·54	55·36	51·60
22	60·13	56·21	52·48	50·27	48·52	22	65·68	60·15	57·47	55·38	51·71
23	59·41	56·84	52·83	50·52	48·65	23	62·53	61·14	57·56	55·38	51·76
24	62·55	57·06	53·24	50·76	48·79	24	61·77	60·24	57·81	55·42	51·85
25	62·10	57·58	53·51	50·92	48·85	25	63·21	60·19	57·87	55·47	51·94
26	59·92	58·28	53·83	51·13	48·94	26	64·90	60·58	57·92	55·54	52·05
27	60·94	57·27	54·18	51·33	49·01	27	66·09	61·45	58·03	55·63	52·14
28	61·81	57·61	54·36	51·55	49·10	28	67·73	62·33	58·23	55·67	52·20
29	65·91	58·86	54·54	51·76	49·21	29	69·10	63·18	58·48	55·74	52·25
30	64·11	60·10	54·84	51·94	49·30	30	65·71	63·88	58·80	55·87	52·29
31	63·23	59·56	55·26	52·14	49·39						
Means	57·26	54·54	51·72	49·62	48·14	Means	63·40	60·67	57·45	54·58	50·99

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1901.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1901.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
July	°	°	°	°	°	Aug.	°	°	°	°	°
1	65·32	62·96	59·18	56·03	52·38	1	67·62	66·36	63·19	60·53	56·10
2	66·54	62·76	59·40	56·21	52·41	2	67·82	66·11	63·34	60·55	56·08
3	67·50	62·80	59·49	56·37	52·50	3	67·23	65·70	63·45	60·60	56·08
4	67·73	63·90	59·61	56·52	52·61	4	65·73	65·84	63·45	60·62	56·08
5	71·60	64·65	59·85	56·66	52·66	5	64·15	64·98	63·41	60·67	56·10
6	68·99	65·75	60·10	56·79	52·74	6	64·13	64·18	63·32	60·71	56·08
7	66·92	64·74	60·46	56·97	*52·81**	7	66·42	63·99	63·14	60·71	56·10
8	67·55	63·93	60·69	57·11	*52·86*	8	67·39	64·87	63·01	60·73	56·17
9	71·44	64·72	60·75	57·29	*52·93*	9	68·02	65·07	63·00	60·73	56·21
10	70·57	65·64	60·87	57·42	*53·01*	10	69·17	65·91	63·10	60·73	56·26
11	73·44	66·20	61·07	57·56	*53·06*	11	66·31	65·73	63·21	60·71	56·30
12	71·20	67·32	61·41	57·72	*53·13**	12	65·80	65·16	63·32	60·78	56·32
13	66·54	66·51	61·77	57·88	53·20	13	65·23	64·45	63·30	60·78	56·37
14	64·51	65·08	61·95	58·08	53·28	14	64·53	64·42	63·25	60·82	56·41
15	67·95	65·17	62·01	58·26	53·35	15	63·64	63·88	63·07	60·82	56·41
16	69·53	65·59	61·97	58·41	53·46	16	64·54	63·73	62·94	60·84	56·46
17	69·55	66·27	62·04	58·55	53·56	17	64·29	63·82	62·82	60·89	56·53
18	73·26	66·74	62·28	58·68	53·64	18	64·47	63·77	62·73	60·84	56·57
19	74·41	67·95	62·49	58·77	53·74	19	67·17	64·65	62·65	60·80	56·62
20	74·97	68·79	62·83	58·89	53·83	20	66·96	64·85	62·65	60·75	56·66
21	72·56	69·26	63·10	59·04	53·91	21	67·23	64·85	62·69	60·67	56·64
22	71·87	69·24	63·43	59·20	53·94	22	68·50	65·17	62·76	60·67	56·66
23	68·49	68·36	63·93	59·41	54·07	23	68·02	65·62	63·00	60·78	56·73
24†	66·22	67·28	63·88	59·63	54·16	24	67·41	65·80	63·01	60·87	56·75
25	63·23	65·12	63·91	59·90	54·43	25	66·76	65·97	63·43	60·78	56·80
26	63·07	64·17	63·70	60·19	55·13	26	65·66	66·09	63·28	60·80	56·80
27	62·28	63·81	63·37	60·37	55·44	27	60·69	63·81	63·39	60·85	56·82
28	63·75	63·34	63·18	60·51	55·98	28	60·35	62·29	63·14	60·93	56·84
29	68·20	64·17	62·89	60·57	56·12	29	61·92	61·54	62·80	61·00	56·91
30	69·57	65·43	62·87	60·57	56·16	30	62·01	62·11	62·46	60·96	56·98
31	69·53	66·29	62·98	60·53	56·10	31	61·95	62·01	62·17	60·87	57·02
Means	68·65	65·61	61·85	58·39	53·76	Means	65·52	64·60	63·05	60·77	56·48

* The values given above for V on July 7–12 have been obtained by interpolation, the soldered junction of leads having been found defective on those days.

† Heavy rain on July 24, 25, and 27.

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1901.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1901.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Sept.	°	°	°	°	°	Oct.	°	°	°	°	°
1	61·32	61·72	61·95	60·78	56·98	1	60·44	59·72	59·22	58·66	57·02
2	61·70	61·77	61·74	60·62	57·02	2	61·07	60·04	59·23	58·62	57·00
3	60·67	61·32	61·79	60·58	57·11	3	59·97	60·03	59·25	58·59	56·97
4	60·62	60·94	61·54	60·55	57·16	4	58·46	59·74	59·31	58·59	56·97
5	59·38	60·64	61·38	60·49	57·22	5	55·13	58·42	59·27	58·55	56·93
6	58·78	60·08	61·18	60·37	57·22	6	54·99	57·40	59·09	58·57	56·93
7	60·35	60·10	60·91	60·26	57·22	7	51·64	56·03	58·73	58·50	56·89
8	60·10	60·51	60·78	60·15	57·25	8	51·35	54·90	58·35	58·42	56·88
9	62·56	60·82	60·62	60·06	57·24	9	54·73	55·22	57·85	58·32	56·89
10	62·22	61·43	60·58	59·95	57·24	10	52·48	54·97	57·51	58·15	56·86
11	60·51	61·36	60·66	59·88	57·22	*11	*53·96*	*55·15*	*57·24*	*57·97*	*56·84*
12	59·34	60·62	60·66	59·83	57·25	12	55·44	55·35	56·98	57·78	56·80
13	60·98	60·30	60·57	59·77	57·24	13	55·29	55·83	56·86	57·63	56·77
14	61·74	60·76	60·44	59·70	57·24	14	54·03	55·67	56·79	57·47	56·73
15	59·59	60·67	60·40	59·65	57·24	15	54·23	55·35	56·71	57·34	56·71
16	58·24	59·97	60·35	59·59	57·22	16	52·90	54·88	56·59	57·20	56·66
17	59·43	59·49	60·17	59·50	57·16	17	53·46	54·64	56·43	57·11	56·61
18	59·90	59·50	59·99	59·45	57·18	18	53·51	54·66	56·28	57·02	56·59
19	57·09	59·34	59·85	59·40	57·20	19	52·00	54·18	56·08	56·86	56·52
20	59·22	59·04	59·68	59·31	57·20	20	49·17	53·51	55·94	56·79	56·50
21	58·77	59·09	59·56	59·23	57·20	21	48·38	52·52	55·69	56·64	56·43
22	58·66	59·14	59·43	59·16	57·22	22	48·45	51·96	55·38	56·53	56·41
23	60·10	59·47	59·34	59·04	57·22	23	48·78	51·51	55·00	56·34	56·32
24	60·66	59·65	59·31	58·95	57·20	24	47·89	51·19	54·70	56·17	56·28
25	60·80	59·77	59·34	58·91	57·18	25	48·29	50·94	54·39	56·05	56·26
26	61·63	59·90	59·34	58·80	57·15	26	46·54	50·29	54·07	55·81	56·17
27	59·22	59·61	59·36	58·80	57·11	27	44·60	49·55	53·83	55·67	56·16
28	59·85	59·47	59·36	58·77	57·09	28	48·20	49·57	53·47	55·49	56·12
29	59·92	59·45	59·29	58·75	57·07	29	50·38	50·36	53·13	55·26	56·03
30	59·23	59·61	59·27	58·69	57·02	30	50·47	51·03	52·99	55·04	55·96
						31	48·42	50·76	52·95	54·84	55·89
Means	60·09	60·18	60·29	59·63	57·18	Means	52·41	54·37	56·43	57·16	56·58

* The values given for Oct. 11 have been obtained by interpolation. See p. 116.

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1901.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1901.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Nov.	°	°	°	°	°	Dec.	°	°	°	°	°
1	47·25	50·00	52·86	54·64	55·80	1	41·07	42·69	46·38	49·73	53·26
2	46·62	49·35	52·72	54·54	55·72	2	42·48	43·27	46·27	49·55	53·15
3	43·25	48·56	52·54	54·41	55·67	3	42·67	43·74	46·31	49·37	53·06
4	42·64	47·53	52·20	54·25	55·56	4	40·35	43·61	46·33	49·24	52·97
5	43·14	46·90	51·80	54·09	55·47	5	38·97	42·58	46·35	49·14	52·88
6	42·73	46·58	51·42	53·91	55·42	6	39·16	42·22	46·18	49·05	52·77
7	43·92	46·29	51·06	53·73	55·35	7	43·52	42·64	46·02	48·96	52·68
8	46·20	46·90	50·74	53·51	55·29	8	46·26	44·10	45·95	48·88	52·63
9	45·95	47·30	50·54	53·29	55·20	9	43·52	44·82	46·04	48·72	52·48
10	46·47	47·59	50·45	53·11	55·15	10	40·59	43·86	46·22	48·65	52·41
11	47·50	47·93	50·38	52·92	55·04	11	39·04	42·76	46·24	48·60	52·32
12	48·02	48·38	50·36	52·72	54·93	12	38·14	42·03	46·08	48·56	52·23
13	46·78	48·43	50·38	52·59	54·86	13	40·19	41·72	45·70	48·40	52·12
14	43·75	47·70	50·41	52·50	54·77	14	40·41	41·97	45·23	48·11	51·89
15	40·51	46·17	50·34	52·39	54·70	15	38·07	41·63	45·00	47·86	51·73
16	37·90	44·62	50·07	52·32	54·63	16	37·62	40·75	44·80	47·70	51·62
17	36·82	43·29	49·62	52·20	54·54	17	36·39	40·30	44·60	47·55	51·53
18	39·04	42·51	49·03	52·03	54·43	18	37·22	40·05	44·33	47·44	51·44
19	43·05	43·41	48·51	51·80	54·36	19	35·96	39·74	44·11	47·30	51·35
20	45·21	44·82	48·22	51·58	54·28	20	35·19	39·16	43·90	47·16	51·28
21	46·24	45·82	48·16	51·33	54·19	21	34·86	38·68	43·68	47·03	51·21
22	45·59	46·38	48·24	51·13	54·12	22	34·56	38·32	43·45	46·90	51·13
23	41·27	45·73	48·33	50·95	53·98	23	34·43	38·01	43·14	46·72	51·04
24	38·35	44·29	48·34	50·86	53·91	24	35·62	37·78	42·87	46·54	50·95
25	36·70	42·80	48·09	50·76	53·82	25	35·42	37·92	42·58	46·36	50·88
26	37·71	41·72	47·73	50·63	53·73	26	35·78	38·05	42·37	46·17	50·81
27	39·34	41·85	47·28	50·49	53·64	27	35·06	37·99	42·19	45·93	50·70
28	40·57	42·33	46·90	50·29	53·53	28	35·29	37·63	42·06	45·75	50·58
29	38·80	42·30	46·71	50·09	53·44	29	38·35	38·41	41·92	45·61	50·47
30	40·48	42·21	46·53	49·87	53·35	30	41·05	39·33	41·83	45·43	50·36
						31	43·72	41·14	41·92	45·27	50·25
Means	42·73	45·66	49·67	52·30	54·63	Means	38·74	40·87	44·52	47·67	51·75

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1902.	Depth.					1902.	Depth.				
	I.	II.	III.	IV.	V.		I.	II.	III.	IV.	V.
	ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½		ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½
Jan.	°	°	°	°	°	Feb.	°	°	°	°	°
1	43·68	42·35	42·21	45·12	50·13	1	34·92	38·62	42·82	45·23	48·56
2	43·86	42·80	42·62	45·09	50·02	2	34·68	38·23	42·57	45·16	48·52
3	43·11	42·94	43·00	45·09	49·89	3	34·75	37·81	42·26	45·03	48·49
4	45·43	43·48	43·30	45·12	49·77	4	35·46	37·72	42·01	44·91	48·47
5	42·80	43·74	43·56	45·19	49·64	5	35·11	37·72	41·79	44·78	48·43
6	42·35	43·07	43·81	45·28	49·53	6	35·26	37·67	41·61	44·64	48·40
7	42·15	43·02	43·97	45·37	49·48	7	34·93	37·69	41·45	44·51	48·34
8	42·21	42·94	44·01	45·45	49·35	8	34·48	37·42	41·31	44·35	48·29
9	42·26	42·80	44·08	45·54	49·33	9	34·59	37·22	41·14	44·22	48·24
10	44·58	43·39	44·10	45·57	49·26	10	34·16	37·13	41·02	44·08	48·18
11	44·94	44·13	44·19	45·63	49·24	11	33·80	36·77	40·86	43·97	48·11
12	43·74	44·06	44·38	45·68	49·19	12	33·60	36·54	40·69	43·86	48·06
13	41·77	43·88	44·51	45·73	49·15	13	33·35	36·30	40·55	43·74	48·00
14	37·49	42·42	44·60	45·79	49·12	14	33·21	36·10	40·37	43·63	47·95
15	35·62	40·77	44·47	45·84	49·08	15	33·12	35·92	40·17	43·50	47·88
16	36·36	39·70	44·17	45·88	49·06	16	33·10	35·82	40·03	43·38	47·82
17	39·09	40·12	43·77	45·86	49·05	17	32·95	35·67	39·87	43·23	47·75
18	39·76	40·69	43·50	45·79	49·03	18	32·95	35·55	39·70	43·12	47·70
19	36·43	40·39	43·39	45·70	49·01	19	32·97	35·47	39·58	42·98	47·62
20	39·20	39·88	43·25	45·59	48·97	20	33·01	35·42	39·45	42·85	47·57
21	42·21	41·02	43·11	45·54	48·96	21	33·17	35·37	39·31	42·73	47·48
22	43·47	42·17	43·12	45·46	48·94	22	35·40	35·67	39·20	42·60	47·41
23	43·63	43·00	43·30	45·37	48·92	23	39·00	37·04	39·16	42·49	47·32
24	43·20	43·27	43·52	45·34	48·85	24	41·32	38·89	39·31	42·40	47·26
25	40·10	42·75	43·74	45·34	48·83	25	41·52	39·94	39·67	42·35	47·19
26	37·74	41·59	43·83	45·36	48·78	26	40·95	40·32	40·06	42·33	47·10
27	39·20	40·75	43·74	45·39	48·72	27	41·85	40·60	40·44	42·37	47·05
28	40·01	41·14	43·57	45·41	48·70	28	43·03	41·27	40·75	42·44	46·99
29	37·17	40·91	43·47	45·39	48·67						
30	35·65	39·81	43·36	45·36	48·63						
31	35·82	39·04	43·14	45·28	48·60						
Means	40·81	42·00	43·64	45·47	49·16	Means	35·59	37·35	40·61	43·60	47·86

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1902.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1902.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Mar.	°	°	°	°	°	Apr.	°	°	°	°	°
1	42·91	41·90	41·09	42·53	46·92	1	47·71	46·18	44·89	45·21	46·90
2	41·56	41·83	41·40	42·64	46·87	2	45·64	45·90	45·10	45·28	46·90
3	42·91	42·17	41·67	42·76	46·81	3	44·47	45·45	45·28	45·36	46·92
4	42·69	42·37	41·88	42·89	46·76	4	44·40	45·27	45·36	45·45	46·94
5	41·45	42·21	42·12	43·00	46·72	5	45·28	45·28	45·37	45·52	46·94
6	40·14	41·67	42·24	43·11	46·69	6	44·67	45·46	45·39	45·59	46·96
7	40·17	41·34	42·31	43·23	46·67	7	44·29	45·21	45·45	45·63	46·98
8	42·60	41·76	42·33	43·32	46·65	8	44·22	45·05	45·45	45·70	46·99
9	44·06	42·46	42·39	43·41	46·63	9	43·27	44·62	45·43	45·72	47·01
10	46·11	43·63	42·55	43·48	46·62	10	43·70	44·51	45·41	45·77	47·03
11	46·00	44·40	42·84	43·54	46·62	11	44·87	44·37	45·34	45·81	47·07
12	45·86	44·56	43·14	43·65	46·58	12	44·58	44·65	45·28	45·81	47·08
13	45·34	44·58	43·45	43·77	46·60	13	45·00	44·73	45·27	45·82	47·10
14	45·00	44·65	43·68	43·90	46·58	14	46·71	45·46	45·30	45·82	47·12
15	45·55	44·73	43·86	44·04	46·58	15	46·35	46·11	45·41	45·82	47·14
16	44·82	44·67	44·02	44·17	46·60	16	48·18	45·97	45·55	45·86	47·16
17	47·07	45·07	44·17	44·29	46·60	17	49·06	46·60	45·70	45·90	47·17
18	46·44	45·77	44·33	44·42	46·62	18	50·79	47·68	45·88	45·95	47·17
19	45·73	45·46	44·55	44·55	46·62	19	50·47	48·34	46·17	46·02	47·21
20	45·37	45·30	44·71	44·65	46·63	20	50·97	48·81	46·47	46·11	47·23
21	43·75	44·91	44·80	44·78	46·65	21	51·12	49·10	46·78	46·24	47·25
22	43·30	44·38	44·83	44·89	46·67	22	51·40	49·59	47·08	46·36	47·25
23	41·67	43·90	44·82	44·98	46·69	23	51·31	49·46	47·35	46·51	47·26
24	41·76	43·57	44·71	45·07	46·72	24	52·32	49·73	47·59	46·63	47·30
25	42·42	43·16	44·60	45·10	46·74	25	53·67	50·31	47·80	46·81	47·32
26	41·92	43·11	44·47	45·12	46·76	26	52·88	50·97	48·07	46·96	47·35
27	44·38	43·14	44·38	45·14	46·80	27	51·55	50·83	48·33	47·10	47·37
28	46·00	44·37	44·33	45·14	46·81	28	51·73	50·56	48·56	47·25	47·41
29	45·61	45·09	44·42	45·10	46·85	29	49·80	50·18	48·72	47·43	47·44
30	44·46	45·16	44·60	45·12	46·85	30	50·13	49·80	48·81	47·57	47·48
31	46·08	45·03	44·76	45·18	46·89						
Means	43·97	43·75	43·53	44·10	46·70	Means	48·02	47·21	46·29	46·10	47·15

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1902.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1902.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
May	°	°	°	°	°	June	°	°	°	°	°
1	51·26	49·80	48·83	47·71	47·53	1	60·39	56·05	52·09	49·89	48·72
2	50·18	49·44	48·85	47·82	47·59	2	61·27	56·77	52·39	50·11	48·78
3	49·96	49·48	48·83	47·91	47·64	3	60·75	57·27	52·74	50·31	48·81
4	48·94	49·33	48·83	48·00	47·70	4	59·90	57·92	53·13	50·49	48·88
5	49·60	48·88	48·83	48·07	47·75	5	60·37	57·20	53·47	50·70	48·94
6	48·40	48·74	48·81	48·13	47·79	6	57·65	57·02	53·67	50·90	49·01
7	47·34	48·38	48·72	48·16	47·84	7	55·67	56·12	53·78	51·10	49·08
8	47·89	48·02	48·63	48·22	47·88	8	54·52	54·97	53·83	51·31	49·15
9	49·46	48·29	48·51	48·24	47·93	9	54·10	54·46	53·62	51·48	49·24
10	49·53	48·47	48·45	48·22	47·98	10	57·87	54·01	53·47	51·57	49·33
11	49·93	48·69	48·47	48·22	48·02	11	55·69	54·99	53·33	51·62	49·42
12	51·69	49·59	48·51	48·24	48·09	12	54·28	54·61	53·35	51·69	49·50
13	50·25	49·68	48·61	48·25	48·11	13	53·60	54·23	53·31	51·73	49·55
14	49·69	48·65	48·74	48·27	48·15	14	52·86	53·65	53·24	51·76	49·62
15	48·63	48·99	48·72	48·31	48·18	15	54·00	53·65	53·19	51·84	49·75
16	51·37	49·30	48·72	48·36	48·20	16	56·37	53·82	53·04	51·82	49·78
17	52·83	49·71	48·76	48·38	48·24	17	55·62	54·18	53·01	51·84	49·84
18	51·80	50·32	48·85	48·40	48·25	18	57·83	54·68	53·04	51·84	49·89
19	50·29	50·04	48·99	48·42	48·27	19	59·65	55·51	53·15	51·85	49·96
20	51·30	49·77	49·14	48·49	48·31	20	59·05	56·57	53·35	51·87	50·02
21	51·71	49·64	49·17	48·54	48·33	21	61·90	56·84	53·62	51·94	50·07
22	51·80	50·09	49·17	48·61	48·36	22	59·90	57·69	53·89	52·02	50·13
23	53·26	50·49	49·24	48·65	48·40	23	62·49	58·15	54·23	52·14	50·18
24	54·09	51·19	49·39	48·70	48·43	24	67·64	59·22	54·55	52·27	50·22
25	56·91	52·56	49·57	48·78	48·47	25	69·22	61·36	54·99	52·45	50·27
26	61·00	53·67	49·93	48·85	48·49	26	67·28	62·02	55·60	52·59	50·32
27	60·10	55·08	50·36	48·96	48·54	27	68·77	62·35	56·17	52·79	50·36
28	57·58	55·42	50·88	49·10	48·58	28	70·59	63·00	56·71	53·08	50·43
29	59·23	54·57	51·33	49·28	48·60	29	69·93	63·93	57·24	53·38	50·49
30	56·59	55·35	51·60	49·50	48·61	30	70·09	63·86	57·78	53·67	50·56
31	58·03	55·02	51·89	49·71	48·67						
Means	52·28	50·54	49·27	48·47	48·16	Means	60·31	57·20	53·97	51·74	49·68

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1902.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1902.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
July	°	°	°	°	°	Aug.	°	°	°	°	°
1	69·17	64·62	58·21	54·00	50·63	1	62·55	60·71	59·41	57·61	53·73
2	64·81	63·52	58·64	54·32	50·74	2	61·84	60·75	59·41	57·61	53·80
3	64·22	62·60	58·87	54·63	50·81	3	61·32	60·84	59·40	57·60	53·85
4	64·92	62·15	58·95	54·91	50·94	4	60·69	60·67	59·38	57·60	53·91
5	66·60	62·80	58·95	55·17	51·01	5	62·89	60·48	59·36	57·58	53·96
6	68·41	63·82	59·02	55·33	51·12	6	63·50	61·23	59·31	57·56	53·98
7	69·78	64·42	59·27	55·51	51·26	7	64·00	61·30	59·38	57·56	54·01
8	71·24	65·05	59·58	55·71	51·33	8	62·40	61·65	59·49	57·58	54·07
9	67·78	65·61	59·94	55·90	51·48	9	59·95	60·53	59·52	57·58	54·10
10	63·81	64·02	60·24	56·10	51·57	10	59·83	60·13	59·54	57·67	54·16
11	62·76	62·53	60·31	56·34	51·67	11	58·32	59·58	59·40	57·65	54·18
12	65·25	61·54	60·21	56·53	51·80	12	59·22	59·07	59·22	57·67	54·21
13	66·00	62·42	60·03	56·66	51·91	13	59·79	59·04	59·00	57·63	54·25
14	71·60	63·57	59·95	56·79	52·03	14	63·16	59·45	58·86	57·60	54·30
15	72·36	65·03	60·10	56·88	52·16	15	63·54	60·87	58·78	57·52	54·36
16	71·80	65·80	60·44	56·97	52·27	16	66·04	61·29	58·89	57·49	54·41
17	70·39	65·77	60·78	57·07	52·36	17	65·19	62·64	59·05	57·47	54·43
18	65·62	65·08	61·09	57·24	52·47	18	62·60	62·15	59·29	57·45	54·45
19	65·23	64·26	61·23	57·42	52·56	19	63·81	61·57	59·52	57·45	54·46
20	62·65	63·75	61·23	57·58	52·66	20	63·79	61·63	59·56	57·58	54·50
21	58·66	62·22	61·16	57·74	52·79	21	61·39	61·27	59·61	57·63	54·54
22	58·33	60·93	60·93	57·85	52·88	22	61·95	61·27	59·58	57·67	54·55
23	59·83	60·30	60·60	57·92	52·99	23	62·51	61·72	59·58	57·70	54·57
24	60·98	60·84	60·22	57·90	53·08	24	63·27	61·47	59·61	57·72	54·61
25	62·40	60·75	60·03	57·88	53·19	25	63·68	61·57	59·63	57·74	54·64
26	62·94	60·91	59·88	57·85	53·28	26	63·48	61·34	59·70	57·79	54·68
27	60·91	61·14	59·81	57·83	53·38	27	64·47	61·23	59·72	57·83	54·70
28	61·48	60·28	59·72	57·76	53·47	28	61·84	61·48	59·72	57·87	54·73
29	62·29	60·66	59·61	57·74	53·55	29	62·92	61·25	59·70	57·90	54·79
30	61·84	60·58	59·52	57·69	53·60	30	61·61	61·70	59·70	57·92	54·81
31	61·45	60·49	59·45	57·65	53·67	31	59·83	60·89	59·70	57·90	54·81
Means	65·02	62·82	59·93	56·67	52·21	Means	62·30	60·99	59·42	57·65	54·34

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1902	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1902.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Sept.	°	°	°	°	°	Oct.	°	°	°	°	°
1	62·85	60·69	59·65	57·92	54·86	1	54·09	55·22	56·93	56·71	55·29
2	63·55	61·65	59·61	57·97	54·90	2	53·96	55·22	56·70	56·68	55·27
3	64·36	61·75	59·65	57·97	54·93	3	50·67	54·34	56·52	56·59	55·26
4	63·81	61·61	59·76	57·97	54·97	4	49·48	53·47	56·26	56·50	55·26
5	63·00	61·30	59·79	57·99	55·00	5	49·42	52·84	55·96	56·41	55·24
6	63·12	61·03	59·77	58·01	55·02	6	50·20	52·61	55·58	56·26	55·20
7	59·34	60·73	59·74	58·03	55·04	7	51·73	52·63	55·27	56·12	55·18
8	61·77	60·48	59·68	58·06	55·08	8	52·39	52·92	55·06	55·98	55·18
9	61·32	60·58	59·61	58·03	55·11	9	50·54	52·75	54·90	55·80	55·17
10	61·16	60·80	59·56	58·06	55·13	10	53·22	52·70	54·73	55·67	55·13
11	61·05	60·55	59·54	58·06	55·17	11	53·49	53·44	54·61	55·53	55·09
12	58·62	59·88	59·47	58·03	55·18	12	50·90	53·24	54·57	55·42	55·08
13	56·01	58·59	59·40	58·03	55·20	13	54·30	53·42	54·50	55·27	55·02
14	55·45	57·90	59·18	58·05	55·26	14	55·24	54·14	54·48	55·18	54·99
15	57·31	57·92	58·87	58·01	55·29	15	53·15	53·87	54·48	55·09	54·93
16	58·59	57·85	58·60	57·94	55·31	16	51·64	53·24	54·52	55·02	54·90
17	56·19	57·65	58·44	57·85	55·35	17	48·29	52·21	54·45	54·99	54·84
18	54·95	56·64	58·28	57·78	55·38	18	49·57	51·53	54·25	54·91	54·81
19	53·80	55·85	58·05	57·69	55·40	19	46·08	51·08	54·01	54·84	54·79
20	53·92	55·53	57·74	57·56	55·38	20	49·55	50·65	53·71	54·75	54·73
21	55·24	55·83	57·45	57·45	55·42	21	49·35	50·97	53·44	54·61	54·68
22	58·32	56·66	57·24	57·33	55·42	22	49·23	50·63	53·26	54·46	54·64
23	59·52	57·76	57·20	57·18	55·40	23	49·17	50·14	53·06	54·32	54·61
24	60·12	57·63	57·24	57·06	55·38	24	50·65	50·92	52·88	54·21	54·57
25	56·80	57·54	57·29	56·97	55·35	25	51·85	51·26	52·77	54·07	54·54
26	55·53	56·89	57·36	56·93	55·35	26	50·54	51·76	52·74	53·94	54·48
27	57·78	56·59	57·27	56·89	55·33	27	50·05	51·42	52·77	53·83	54·43
*28	*56·98*	*56·70*	*57·22*	*56·86*	*55·33*	28	49·32	50·85	52·75	53·76	54·37
29	56·17	56·80	57·16	56·82	55·33	29	50·41	50·99	52·65	53·69	54·34
30	51·94	55·74	57·09	56·77	55·31	30	51·10	51·15	52·56	53·62	54·28
						31	47·52	50·41	52·52	53·53	54·23
Means	58·62	58·57	58·56	57·64	55·22	Means	50·87	52·32	54·29	55·09	54·86

* The values given for Sept. 28 have been obtained by interpolation. See p. 116.

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1902.	Depth.					1902.	Depth.				
	I.	II.	III.	IV.	V.		I.	II.	III.	IV.	V.
	ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½		ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½
Nov.	°	°	°	°	°	Dec.	°	°	°	°	°
1	49·66	50·11	52·41	53·46	54·18	1	44·35	45·50	47·46	49·57	52·41
2	47·88	50·40	52·30	53·42	54·16	2	44·49	45·52	47·39	49·46	52·29
3	49·42	50·20	52·16	53·31	54·10	3	40·91	44·91	47·37	49·37	52·18
4	46·35	49·53	52·03	53·20	54·05	4	36·91	43·16	47·26	49·30	52·09
5	45·54	48·51	51·87	53·15	54·00	5	35·49	41·63	46·99	49·24	52·02
6	49·32	48·99	51·64	53·06	53·96	6	34·86	40·51	46·51	49·14	51·94
7	51·13	50·13	51·48	52·95	53·91	7	34·07	39·78	46·04	49·01	51·87
8	48·29	50·00	51·44	52·83	53·87	8	33·91	39·06	45·52	48·83	51·82
9	46·40	49·28	51·46	52·74	53·82	9	33·94	38·64	45·03	48·60	51·75
10	46·71	48·70	51·35	52·65	53·76	10	34·05	38·35	44·58	48·36	51·67
11	46·54	48·56	51·17	52·56	53·73	11	34·75	38·21	44·19	48·11	51·60
12	48·99	48·76	50·99	52·45	53·65	12	34·77	38·23	43·88	47·88	51·55
13	46·29	48·58	50·88	52·38	53·62	13	38·26	38·50	43·59	47·59	51·46
14	48·07	48·42	50·77	52·29	53·56	14	41·31	39·94	43·41	47·39	51·37
15	47·34	48·90	50·68	52·18	53·53	15	42·60	41·86	43·41	47·16	51·28
16	45·99	48·56	50·65	52·11	53·47	16	42·60	41·77	43·65	46·98	51·19
17	43·52	47·66	50·56	52·00	53·40	17	47·07	43·43	43·90	46·87	51·10
18	40·55	46·20	50·36	51·93	53·37	18	44·91	44·42	44·22	46·80	50·99
19	37·99	44·56	50·04	51·84	53·31	19	42·75	43·75	44·58	46·76	50·88
20	37·76	43·36	49·55	51·73	53·26	20	43·75	43·72	44·78	46·76	50·77
21	36·39	42·60	48·99	51·55	53·20	21	44·75	44·06	44·94	46·81	50·70
22	37·89	42·13	48·45	51·39	53·15	22	45·45	44·73	45·09	46·85	50·63
23	39·72	42·33	47·98	51·13	53·11	23	45·28	45·00	45·28	46·89	50·52
24	40·78	42·87	47·59	50·86	53·04	24	43·03	44·76	45·46	46·92	50·45
25	44·78	43·95	47·37	50·59	52·99	25	42·62	43·90	45·55	46·96	50·38
26	45·82	45·18	47·34	50·36	52·92	26	43·79	44·33	45·55	47·01	50·34
27	45·90	45·82	47·44	50·18	52·84	27	44·33	44·65	45·59	47·05	50·27
28	45·82	45·90	47·59	50·02	52·75	28	44·01	44·85	45·64	47·07	50·22
29	43·88	45·34	47·70	49·91	52·66	29	40·71	43·92	45·72	47·08	50·16
30	44·44	45·39	47·61	49·75	52·54	30	38·35	42·62	45·68	47·12	50·11
						31	38·50	41·65	45·46	47·12	50·05
Means	44·97	47·03	50·06	51·93	53·46	Means	40·53	42·43	45·28	47·74	51·16

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1903.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1903.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Jan.	°	°	°	°	°	Feb.	°	°	°	°	°
1	36·23	41·02	45·14	47·07	50·02	1	41·11	42·40	43·00	44·37	48·13
2	39·31	40·39	44·82	47·01	49·98	2	37·78	41·32	43·11	44·44	48·06
3	41·45	41·63	44·49	46·92	49·96	3	38·03	40·32	43·07	44·49	48·02
4	39·88	41·76	44·35	46·81	49·93	4	41·41	40·93	42·91	44·55	47·98
5	42·96	42·03	44·24	46·63	49·86	5	42·91	41·85	42·84	44·55	47·95
6	45·81	43·56	44·13	46·44	49·77	6	42·40	42·21	42·91	44·53	47·91
7	44·29	44·22	44·29	46·29	49·68	7	43·70	42·53	43·03	44·55	47·88
8	40·86	43·61	44·55	46·24	49·59	8	45·90	43·39	43·16	44·56	47·84
9	42·19	43·02	44·64	46·22	49·51	9	47·57	44·56	43·39	44·58	47·80
10	42·87	43·48	44·67	46·24	49·46	10	47·52	45·43	43·72	44·65	47·79
11	39·29	42·85	44·69	46·27	49·41	11	46·71	45·52	44·11	44·74	47·75
12	36·16	41·27	44·64	46·26	49·33	12	46·33	45·52	44·42	44·83	47·70
13	35·01	39·97	44·38	46·24	49·30	13	43·54	44·98	44·65	44·96	47·70
14	34·18	39·04	43·99	46·18	49·26	14	42·84	44·19	44·82	45·14	47·70
15	33·57	38·35	43·61	46·11	49·23	15	43·84	44·22	44·80	45·23	47·70
16	32·99	37·76	43·20	45·97	49·19	16	43·81	44·37	44·78	45·34	47·68
17	32·59	37·18	42·78	45·79	49·12	17	42·55	43·92	44·78	45·39	47·66
18	32·67	36·79	42·40	45·61	49·06	18	38·97	43·09	44·76	45·45	47·64
19	32·79	36·55	42·03	45·45	49·05	19	41·86	42·33	44·64	45·48	47·64
20	32·88	36·37	41·70	45·23	49·01	20	45·52	43·39	44·46	45·50	47·66
21	33·01	36·23	41·38	45·01	48·92	21	47·73	44·85	44·42	45·52	47·68
22	36·41	36·61	41·13	44·78	48·85	22	45·03	45·25	44·64	45·52	47·70
23	36·59	37·74	40·98	44·60	48·79	23	45·45	45·43	44·83	45·50	47·68
24	38·62	38·23	41·02	44·42	48·72	24	42·37	44·31	45·00	45·57	47·66
25	41·61	39·58	41·11	44·29	48·69	25	43·83	44·06	45·01	45·61	47·66
26	43·93	40·91	41·31	44·17	48·58	26	43·59	44·20	44·98	45·68	47·66
27	45·16	42·24	41·65	44·11	48·49	27	44·62	44·11	44·96	45·70	47·66
28	42·44	42·76	42·06	44·10	48·43	28	43·14	44·26	44·96	45·72	47·66
29	41·36	42·21	42·46	44·13	48·34						
30	42·48	42·19	42·69	44·22	48·27						
31	41·83	42·40	42·85	44·31	48·20						
Means	38·76	40·39	43·14	45·58	49·16	Means	43·57	43·68	44·15	45·08	47·77

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1903.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1903.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Mar.	°	°	°	°	°	Apr.	°	°	°	°	°
1	41·52	43·75	44·98	45·73	47·66	1	46·36	46·89	46·65	46·44	47·44
2	40·53	42·73	44·91	45·77	47·68	2	46·90	46·81	46·67	46·53	47·46
3	42·35	43·02	44·73	45·75	47·68	3	45·41	46·24	46·69	46·58	47·46
4	42·15	42·76	44·56	45·73	47·66	4	48·16	46·58	46·67	46·65	47·50
5	44·33	43·43	44·47	45·70	47·66	5	45·95	46·53	46·63	46·69	47·52
6	41·99	43·45	44·46	45·64	47·62	6	46·92	46·71	46·65	46·72	47·55
7	41·83	43·07	44·49	45·63	47·64	7	47·73	46·94	46·67	46·74	47·57
8	39·94	42·60	44·49	45·63	47·66	8	46·51	46·69	46·72	46·80	47·61
9	40·69	42·19	44·37	45·59	47·62	9	47·03	46·74	46·78	46·81	47·61
10	42·48	42·53	44·24	45·55	47·62	10	47·44	47·34	46·81	46·85	47·64
11	41·47	42·40	44·15	45·50	47·59	11	48·31	47·75	46·89	46·89	47·66
12	41·92	42·49	44·10	45·46	47·59	12	46·87	47·39	46·99	46·92	47·68
13	43·54	42·93	44·08	45·43	47·57	13	44·20	46·51	47·10	47·01	47·70
14	43·43	43·66	44·10	45·39	47·57	14	43·68	45·36	47·03	47·03	47·71
15	41·81	43·45	44·19	45·36	47·53	15	44·29	45·32	46·85	47·08	47·75
16	43·16	43·30	44·24	45·32	47·52	16	42·73	44·67	46·71	47·08	47·77
17	42·84	43·27	44·29	45·36	47·52	17	42·84	44·10	46·49	47·07	47·79
18	45·46	43·88	44·29	45·36	47·50	18	44·02	43·88	46·29	47·07	47·80
19	45·37	44·28	44·38	45·36	47·46	19	44·19	44·04	46·13	46·99	47·84
20	47·17	44·87	44·51	45·36	47·44	20	47·41	44·94	46·00	46·92	47·84
21	47·28	45·45	44·67	45·36	47·44	21	47·14	46·09	45·97	46·83	47·84
22	48·40	46·06	44·89	45·43	47·43	22	46·06	45·59	46·11	46·80	47·82
23	48·99	46·85	45·16	45·48	47·41	23	44·71	45·18	46·20	46·78	47·84
24	47·26	46·60	45·45	45·55	47·39	24	43·09	44·89	46·20	46·78	47·84
25	48·85	46·54	45·68	45·64	47·39	25	46·76	44·35	46·15	46·80	47·86
26	49·80	47·71	45·86	45·77	47·39	26	46·02	45·93	46·08	46·80	47·86
27	47·39	47·39	46·11	45·90	47·39	27	47·35	46·04	46·13	46·78	47·86
28	48·85	47·37	46·33	46·02	47·41	28	48·94	46·81	46·26	46·78	47·86
29	46·60	47·08	46·45	46·15	47·41	29	51·28	48·13	46·44	46·78	47·86
30	48·29	47·17	46·54	46·26	47·41	30	51·58	50·83	46·78	46·83	47·86
31	47·14	47·05	46·60	46·35	47·43						
Means	44·61	44·49	44·90	45·63	47·53	Means	46·33	46·18	46·52	46·83	47·71

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1903.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1903.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
May	°	°	°	°	°	June	°	°	°	°	°
1	51·33	49·35	47·17	46·89	47·88	1	64·36	59·76	54·28	51·30	49·14
2	52·57	49·46	47·50	46·99	47·86	2	63·09	60·42	54·73	51·51	49·21
3	50·49	50·04	47·77	47·12	47·86	3	58·62	59·27	55·13	51·75	49·28
4	51·62	49·73	48·07	47·28	47·86	4	60·87	57·94	55·33	52·00	49·39
5	53·28	50·36	48·29	47·43	47·88	5	62·82	58·75	55·35	52·23	49·50
6	54·70	50·90	48·51	47·59	47·89	6	62·29	59·05	55·40	52·41	49·57
7	54·14	51·37	48·87	47·73	47·88	7	59·40	59·16	55·49	52·54	49·64
8	54·61	51·62	49·15	47·89	47·88	8	60·94	58·12	55·62	52·68	49·73
9	53·01	51·55	49·41	48·07	47·93	9	58·41	58·50	55·62	52·81	49·84
10	51·39	51·35	49·59	48·24	47·98	10	57·96	57·96	55·65	52·93	49·89
11	50·05	51·01	49·71	48·38	48·02	11	57·07	57·38	55·62	53·06	49·98
12	50·43	49·95	49·71	48·51	48·07	12	57·58	56·41	55·53	53·15	50·07
13	50·56	49·73	49·62	48·60	48·11	13	56·07	56·53	55·38	53·22	50·16
14	51·64	50·11	49·51	48·67	48·16	14	53·29	55·80	55·26	53·26	50·23
15	52·84	50·52	49·48	48·72	48·22	15	52·56	54·32	55·18	53·44	*50·92
16	51·94	50·94	49·53	48·78	48·25	16	57·58	53·87	54·72	53·73	51·89
17	50·63	50·54	49·62	48·83	48·31	17	59·97	55·00	54·45	53·73	51·76
18	52·86	50·50	49·64	48·83	48·34	18	59·31	55·87	54·39	53·65	51·64
19	53·91	50·81	49·68	48·88	48·36	19	56·21	56·52	54·48	53·53	51·55
20	55·18	52·07	49·78	48·96	48·42	20	53·98	54·93	54·64	53·47	51·48
21	58·14	52·38	50·00	49·01	48·49	21	54·52	54·48	54·61	53·49	51·44
22	61·07	53·80	50·25	49·10	48·52	22	60·91	55·44	54·45	53·46	51·39
23	61·66	55·11	50·61	49·19	48·54	23	61·30	56·59	54·46	53·42	51·35
24	59·58	55·87	51·04	49·30	48·58	24	60·73	57·36	54·61	53·38	51·33
25	62·26	55·94	51·57	49·48	48·63	25	61·88	57·63	54·82	53·38	51·33
26	62·06	56·68	51·98	49·66	48·65	26	64·98	58·95	55·06	53·44	51·33
27	60·58	56·86	52·41	49·91	48·72	27	67·98	60·17	55·40	53·49	51·33
28	60·10	56·91	52·74	50·11	48·74	28	67·71	61·57	55·83	53·60	51·37
29	57·79	56·82	53·04	50·36	48·81	29	67·75	62·49	56·37	53·73	51·37
30	63·18	56·84	53·26	50·59	48·87	30	67·24	62·35	56·89	53·87	51·39
31	61·43	58·73	53·76	50·97	49·03						
Means	55·32	52·51	50·04	48·71	48·28	Means	60·25	57·75	55·16	53·06	50·62

* See pp. 117, 118.

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1903.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1903.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
July	°	°	°	°	°	Aug.	°	°	°	°	°
1	66·45	62·29	57·34	54·09	51·40	1	60·42	60·51	59·97	57·97	54·09
2	67·32	62·76	57·69	54·32	51·44	2	62·13	60·75	59·77	57·94	54·12
3	66·22	63·27	58·01	54·55	51·48	3	63·63	61·34	59·72	57·97	54·21
4	65·82	62·65	58·35	54·79	51·51	4	62·92	61·63	59·67	57·88	54·21
5	64·67	63·00	58·57	55·02	51·58	5	62·15	61·32	59·70	57·87	54·27
6	63·36	62·55	58·80	55·26	51·66	6	62·40	60·82	59·67	57·81	54·32
7	61·50	61·57	58·91	55·45	51·73	7	63·77	60·89	59·65	57·85	54·37
8	63·43	61·12	58·93	55·63	51·78	8	64·09	61·75	59·61	57·83	54·41
9	67·35	61·84	58·89	55·83	51·89	9	62·56	61·97	59·70	57·83	54·45
10	69·26	62·96	58·96	55·96	52·00	10	62·19	61·41	59·72	57·83	54·46
11	71·31	64·36	58·98	56·07	52·05	11	61·14	61·02	59·76	57·85	54·52
12	67·82	65·39	59·47	56·14	52·09	12	62·38	60·73	59·68	57·85	54·55
13	63·23	63·93	59·94	56·34	52·20	13	63·68	61·12	59·61	57·87	54·57
14	63·88	62·65	60·13	56·53	52·32	14	62·49	61·95	59·63	57·87	54·61
15	66·11	62·58	60·12	56·71	52·41	15	61·16	61·63	59·70	57·87	54·64
16	64·29	63·36	60·10	56·88	52·48	16	59·54	60·76	59·77	57·90	54·70
17	64·65	62·71	60·15	57·00	52·56	17	61·84	60·62	59·67	57·92	54·73
18	66·43	62·73	60·17	57·09	52·66	18	61·59	60·96	59·58	57·94	54·77
19	62·73	62·55	60·19	57·20	52·77	19	61·23	60·67	59·52	57·88	54·79
20	61·99	62·19	60·19	57·33	52·93	20	60·13	60·64	59·49	57·90	54·82
21	63·05	61·38	60·13	57·38	53·02	21	60·89	60·12	59·43	57·90	54·86
22	63·97	61·83	60·04	57·47	53·11	22	60·39	60·26	59·34	57·90	54·88
23	64·36	62·11	59·99	57·54	53·26	23	59·40	60·01	59·27	57·87	54·91
24	65·07	62·13	60·01	57·58	53·35	24	58·96	60·22	59·22	57·85	54·95
25	64·99	62·29	60·06	57·67	53·47	25	58·35	59·72	59·18	57·83	55·00
26	63·54	62·64	60·15	57·72	53·56	26	58·35	58·51	59·09	57·79	54·99
27	61·68	62·46	60·21	57·83	53·85	27	59·97	58·71	58·86	57·79	55·04
28	62·98	61·59	60·22	57·87	53·89	28	59·72	58·82	58·71	57·76	55·08
29	63·91	62·11	60·17	57·94	53·92	29	61·88	59·45	58·62	57·70	55·11
30	62·46	61·83	60·12	57·92	53·96	30	60·24	59·95	58·60	57·65	55·13
31	60·15	61·20	60·12	57·97	54·03	31	63·21	59·85	58·66	57·60	55·15
Means	64·64	62·52	59·52	56·55	52·59	Means	61·38	60·58	59·44	57·85	54·67

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1903.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1903.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Sept.	°	°	°	°	°	Oct.	°	°	°	°	°
1	63·55	60·73	58·69	57·56	55·15	1	58·75	58·71	57·78	56·71	55·22
2	65·68	61·65	58·84	57·54	55·18	2	58·62	58·57	57·78	56·73	55·18
3	63·75	61·84	59·09	57·56	55·18	3	60·71	58·59	57·76	56·75	55·20
4	63·39	61·57	59·32	57·61	55·22	4	58·82	58·57	57·78	56·79	55·18
5	63·50	61·74	59·43	57·67	55·22	5	58·01	58·33	57·70	56·77	55·13
6	59·38	61·36	59·52	57·74	55·22	6	56·12	57·63	57·67	56·77	55·15
7	61·41	60·49	59·58	57·81	55·26	7	56·08	57·22	57·56	56·79	55·17
8	60·26	60·40	59·45	57·81	55·24	8	57·70	57·18	57·38	56·75	55·15
9	60·94	60·19	59·36	57·87	55·27	9	56·26	57·16	57·29	56·75	55·15
10	57·83	59·68	59·29	57·87	55·31	10	53·96	55·94	57·22	56·71	55·18
11	55·85	58·35	59·14	57·87	55·31	11	52·83	55·42	56·98	56·66	55·18
12	54·75	57·38	58·87	57·85	55·35	12	54·93	54·97	56·61	56·59	55·20
13	54·25	56·62	58·50	57·78	55·35	13	53·87	55·06	56·26	56·50	55·26
14	54·12	56·16	58·12	57·70	55·36	14	52·72	54·37	56·03	56·34	55·22
15	53·22	55·65	57·78	57·56	55·36	15	54·18	54·43	55·83	56·23	55·20
16	53·58	55·04	57·42	57·43	55·38	16	51·51	53·62	55·63	56·12	55·17
17	53·56	55·04	57·11	57·29	55·42	17	50·56	52·83	55·44	56·01	55·17
18	54·81	55·22	56·80	57·11	55·42	18	49·95	52·39	55·17	55·89	55·15
19	56·64	55·71	56·62	56·97	55·44	19	51·04	52·39	54·82	55·72	55·11
20	58·03	56·57	56·53	56·84	55·44	20	52·88	52·81	54·57	55·58	55·08
21	58·69	57·24	56·52	56·68	55·40	21	52·00	52·93	54·45	55·42	55·04
22	59·09	57·61	56·64	56·57	55·38	22	51·17	52·36	54·34	55·27	55·00
23	59·61	57·83	56·77	56·48	55·35	23	49·42	51·98	54·23	55·15	55·00
24	61·32	58·55	56·89	56·44	55·31	24	47·41	50·90	54·03	55·02	54·95
25	61·90	59·23	57·07	56·44	55·27	25	49·46	50·97	53·80	54·95	54·97
26	59·13	59·00	57·31	56·46	55·26	26	50·74	51·28	53·35	54·70	54·90
27	58·08	58·50	57·47	56·48	55·24	27	48·92	50·99	53·15	54·52	54·86
28	60·17	58·57	57·51	56·52	55·20	28	50·40	51·13	52·97	54·34	54·82
29	60·75	59·05	57·54	56·55	55·20	29	50·04	50·65	52·79	54·14	54·79
30	60·46	58·98	57·69	56·64	55·20	30	50·65	50·72	52·61	53·98	54·73
						31	47·39	50·09	52·50	53·83	54·66
Means	58·92	58·53	58·03	57·22	55·30	Means	53·13	54·20	55·53	55·82	55·07

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1903.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1903.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Nov.	°	°	°	°	°	Dec.	°	°	°	°	°
1	49·64	50·11	52·36	53·73	54·61	1	38·01	42·96	47·55	49·89	52·70
2	47·62	50·05	52·20	53·58	54·52	2	35·80	41·83	47·23	49·78	52·65
3	49·33	50·13	52·07	53·47	54·48	3	34·97	40·66	46·78	49·64	52·56
4	45·21	49·53	51·98	53·40	54·45	4	39·06	40·62	46·33	49·50	52·50
5	44·53	48·40	51·84	53·28	54·37	5	36·81	40·84	45·90	49·28	52·41
6	45·37	47·79	51·55	53·15	54·30	6	36·50	40·37	45·64	49·06	52·36
7	42·62	47·28	51·24	53·04	54·25	7	36·48	39·96	45·34	48·83	52·25
8	43·72	46·72	50·94	52·88	54·18	8	38·66	40·21	45·05	48·65	52·18
9	46·02	46·72	50·61	52·74	54·14	9	41·49	40·96	44·82	48·40	52·09
10	46·13	47·03	50·36	52·57	54·10	10	40·89	41·70	44·74	48·20	52·00
11	48·27	47·79	50·20	52·39	54·03	11	40·30	41·90	44·74	48·02	51·89
12	48·07	48·36	50·14	52·25	53·98	12	38·25	41·49	44·80	47·89	51·82
13	49·68	48·90	50·16	52·09	53·91	13	40·64	41·36	44·78	47·80	51·75
14	49·51	49·28	50·25	51·98	53·85	14	41·49	42·24	44·67	47·66	51·64
15	44·71	48·67	50·34	51·91	53·76	15	41·07	42·19	44·69	47·53	51·53
16	42·44	47·05	50·32	51·84	53·71	16	40·24	42·13	44·73	47·44	51·42
17	41·68	45·91	50·11	51·78	53·64	17	40·33	41·97	44·71	47·34	51·33
18	41·14	45·16	49·75	51·71	53·56	18	41·20	42·21	44·71	47·32	51·22
19	38·66	44·31	49·37	51·58	53·49	19	41·54	42·44	44·73	47·25	51·15
20	38·01	43·20	48·97	51·46	53·44	20	40·98	42·51	44·76	47·23	51·12
21	43·21	43·70	48·51	51·28	53·42	21	40·66	42·26	44·74	47·16	50·97
22	42·85	44·51	48·22	51·12	53·37	22	42·93	42·55	44·73	47·10	50·90
23	45·91	45·28	48·04	50·86	53·28	23	43·48	43·23	44·76	47·08	50·83
24	47·10	46·35	48·02	50·68	53·20	24	42·33	43·39	44·85	47·07	50·76
25	42·28	45·93	48·09	50·52	53·13	25	41·02	43·02	44·96	47·03	50·70
26	41·68	44·91	48·15	50·41	53·08	26	39·51	42·57	44·98	47·03	50·63
27	43·65	44·69	48·07	50·34	53·06	27	37·96	41·70	44·91	46·99	50·54
28	44·71	45·36	47·91	50·23	52·95	28	37·74	40·95	44·74	46·98	50·47
29	42·96	45·46	47·84	50·18	52·92	29	36·72	40·50	44·53	46·96	50·43
30	39·76	44·11	47·75	50·04	52·81	30	34·72	39·63	44·31	46·90	50·38
						31	34·07	38·73	43·95	46·78	50·32
Means	44·55	46·76	49·85	51·88	53·73	Means	39·22	41·58	45·10	47·86	51·47

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1904.	Depth.					1904.	Depth.				
	I.	II.	III.	IV.	V.		I.	II.	III.	IV.	V.
	ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½		ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½
Jan.	°	°	°	°	°	Feb.	°	°	°	°	°
1	33·75	38·16	43·57	46·63	50·25	1	37·49	40·37	42·28	44·15	48·24
2	33·66	37·74	43·21	46·49	50·18	2	38·86	39·85	42·26	44·15	48·18
3	35·31	37·53	42·94	46·40	50·18	3	38·89	39·88	42·17	44·17	48·11
4	35·76	38·34	42·58	46·17	50·11	4	39·69	40·12	42·08	44·13	48·04
5	38·05	38·84	42·46	45·99	50·04	5	39·83	40·42	42·06	44·10	47·95
6	36·90	39·09	42·40	45·82	49·96	6	40·03	40·62	42·08	44·06	47·88
7	37·71	38·89	42·39	45·68	49·89	7	37·31	40·28	42·13	44·08	47·84
8	39·29	39·72	42·33	45·54	49·80	8	40·35	40·24	42·12	44·01	47·73
9	38·28	39·79	42·40	45·45	49·75	9	39·29	40·51	42·10	44·01	47·70
10	39·27	39·72	42·46	45·37	49·69	10	39·81	40·28	42·04	43·92	47·62
11	37·51	39·54	42·44	45·28	49·59	11	39·81	40·51	41·99	43·84	47·50
12	40·24	39·97	42·42	45·21	49·51	12	37·83	40·14	41·99	43·79	47·41
13	44·28	41·16	42·42	45·16	49·44	13	41·68	40·60	41·99	43·79	47·34
14	41·18	41·86	42·60	45·10	49·37	14	38·68	40·68	41·99	43·75	47·28
15	37·85	41·09	42·85	45·07	49·28	15	37·38	40·19	42·04	43·77	47·26
16	36·18	39·99	42·93	45·05	49·21	16	36·91	39·54	42·03	43·77	47·23
17	35·11	39·20	42·82	45·05	49·12	17	37·13	39·31	41·94	43·77	47·19
18	38·55	38·95	42·60	45·03	49·03	18	36·21	38·88	41·77	43·74	47·16
19	42·24	40·42	42·44	45·01	48·97	19	36·01	38·53	41·63	43·72	47·16
20	37·69	40·75	42·44	44·94	48·88	20	41·34	39·22	41·47	43·66	47·12
21	37·54	39·74	42·57	44·89	48·83	21	43·63	40·89	41·43	43·63	47·10
22	35·22	39·33	42·49	44·85	48·76	22	43·23	42·01	41·61	43·56	47·07
23	34·30	38·34	42·40	44·83	48·72	23	39·92	41·65	41·95	43·57	47·03
24	34·03	37·78	42·21	44·80	48·69	24	39·36	40·93	42·15	43·59	46·99
25	33·84	37·35	41·90	44·71	48·61	25	38·52	40·46	42·21	43·65	46·96
26	35·47	37·04	41·59	44·60	48·54	26	37·26	39·94	42·17	43·68	46·92
27	41·31	38·61	41·32	44·46	48·45	27	37·20	39·42	42·08	43·74	46·92
28	43·48	40·71	41·36	44·37	48·43	28	37·09	39·29	41·95	43·75	46·90
29	40·50	41·20	41·67	44·28	48·40	29	35·17	38·88	41·79	43·74	46·90
30	41·92	41·13	41·95	44·22	48·34						
31	40·44	41·50	42·13	44·20	48·29						
Means	37·96	39·47	42·40	45·18	49·24	Means	38·82	40·13	41·98	43·84	47·40

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1904.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1904.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Mar.	°	°	°	°	°	Apr.	°	°	°	°	°
1	35·11	38·16	41·67	43·74	46·90	1	43·84	43·84	43·75	44·42	46·42
2	35·62	37·99	41·45	43·66	46·89	2	45·19	43·86	43·84	44·44	46·38
3	36·39	38·01	41·22	43·59	46·85	3	46·83	44·51	43·93	44·51	46·40
4	36·03	38·12	41·09	43·52	46·83	4	45·55	45·21	44·10	44·55	46·42
5	36·79	37·99	40·98	43·45	46·81	5	45·97	45·36	44·33	44·62	46·42
6	36·91	38·30	40·91	43·39	46·81	6	49·42	45·72	44·51	44·71	46·44
7	37·76	38·41	40·86	43·30	46·80	7	48·16	46·54	44·73	44·78	46·44
8	41·14	39·06	40·84	43·23	46·76	8	47·50	46·36	45·00	44·91	46·45
9	42·03	40·39	40·89	43·16	46·72	9	50·05	47·12	45·21	45·00	46·45
10	42·71	41·56	41·14	43·14	46·71	10	46·62	47·17	45·43	45·12	46·47
11	40·84	41·31	41·47	43·12	46·67	11	48·02	46·35	45·64	45·23	46·45
12	38·95	40·96	41·70	43·16	46·63	12	49·28	47·17	45·79	45·39	46·51
13	39·85	40·80	41·83	43·23	46·63	13	50·92	48·04	45·95	45·54	46·54
14	41·16	41·11	41·86	43·29	46·58	14	51·46	48·52	46·20	45·64	46·56
15	41·58	41·47	41·95	43·32	46·51	15	51·03	49·30	46·49	45·79	46·60
16	40·62	41·18	42·06	43·39	46·49	16	51·21	48·61	46·80	45·90	46·62
17	41·18	41·41	42·13	43·39	46·51	17	51·08	49·42	47·01	46·08	46·65
18	42·22	41·58	42·24	43·47	46·49	18	53·55	49·73	47·25	46·22	46·67
19	44·29	42·53	42·33	43·54	46·47	19	53·37	50·31	47·50	46·38	46·71
20	45·77	43·41	42·48	43·57	46·45	20	54·05	50·49	47·82	46·56	46·76
21	46·06	44·24	42·76	43·65	46·40	21	51·08	50·97	48·07	46·72	46·80
22	43·50	43·54	43·07	43·70	46·42	22	49·17	49·80	48·29	46·89	46·85
23	43·86	43·47	43·29	43·81	46·42	23	48·69	49·10	48·34	47·05	46·89
24	43·14	43·36	43·39	43·92	46·40	24	49·51	49·24	48·29	47·16	46·92
25	41·13	43·05	43·48	44·02	46·42	25	51·75	50·09	48·33	47·30	47·01
26	41·29	42·30	43·52	44·11	46·40	26	50·18	49·50	48·45	47·43	47·08
27	41·11	42·28	43·47	44·20	46·42	27	50·45	49·06	48·51	47·50	47·10
28	43·75	42·82	43·39	44·22	46·38	28	50·85	49·68	48·49	47·59	47·16
29	45·34	43·39	43·39	44·24	46·36	29	52·68	49·71	48·54	47·66	47·21
30	43·00	43·61	43·50	44·28	46·36	30	52·50	50·40	48·65	47·75	47·28
31	44·20	43·43	43·63	44·29	46·36						
Means	41·08	41·27	42·19	43·62	46·58	Means	49·67	48·04	46·51	45·96	46·69

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1904.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1904.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
May	°	°	°	°	°	June	°	°	°	°	°
1	52·86	50·56	48·76	47·80	47·30	1	60·64	56·84	53·74	51·17	49·08
2	52·25	51·44	48·96	47·91	47·37	2	56·39	56·57	53·91	51·37	49·14
3	51·85	50·58	49·19	48·00	47·44	3	60·64	55·74	53·96	51·51	49·23
4	51·51	50·36	49·28	48·11	47·48	4	63·18	56·82	53·98	51·66	49·30
5	54·19	51·24	49·32	48·20	47·52	5	62·26	58·24	54·12	51·80	49·39
6	54·50	51·49	49·44	48·29	47·55	6	61·83	59·05	54·45	51·93	49·46
7	50·86	51·44	49·62	48·40	47·62	7	63·09	59·09	54·81	52·05	49·53
8	48·88	50·13	49·73	48·49	47·66	8	60·42	59·05	55·13	52·23	49·60
9	50·02	49·71	49·68	48·60	47·73	9	59·41	58·59	55·35	52·38	49·68
10	49·51	49·80	49·60	48·69	47·79	10	59·54	58·23	55·47	52·57	49·75
11	48·90	49·55	49·50	48·72	47·82	11	57·99	58·10	55·54	52·77	49·84
12	52·66	50·22	49·42	48·72	47·88	12	58·03	57·45	55·58	52·92	49·95
13	54·57	51·22	49·42	48·74	47·91	13	61·74	58·68	55·53	53·02	49·98
14	56·73	52·18	49·66	48·81	47·98	14	61·52	58·89	55·65	53·11	50·07
15	56·93	52·86	49·86	48·83	48·00	15	58·64	58·62	55·80	53·20	50·14
16	57·92	53·94	50·23	48·94	48·07	16	60·84	58·14	55·90	53·33	50·22
17	59·56	54·54	50·63	49·05	48·15	17	60·85	58·37	55·94	53·44	50·32
18	57·42	54·72	50·97	49·17	48·18	18	62·33	58·46	55·98	53·53	50·40
19	56·46	54·05	51·31	49·33	48·22	19	59·52	59·05	56·05	53·62	50·49
20	57·00	53·87	51·55	49·53	48·29	20	62·49	58·60	56·14	53·65	50·56
21	52·65	53·92	51·69	49·69	48·33	21	59·74	59·04	56·21	53·78	50·61
22	52·86	53·01	51·75	49·84	48·36	22	61·54	59·63	56·32	53·83	50·68
23	55·29	53·04	51·71	49·96	48·43	23	61·99	58·86	56·35	53·92	50·76
24	55·36	53·91	51·75	50·11	48·51	24	62·82	59·67	56·50	54·05	50·88
25	56·79	53·65	51·82	50·18	48·54	25	61·09	59·50	56·61	54·10	50·92
26	57·72	54·27	51·89	50·27	48·60	26	60·19	58·86	56·71	54·18	50·94
27	58·82	55·26	52·05	50·36	48·67	27	61·14	58·71	56·84	54·34	51·08
28	58·06	55·72	52·38	50·52	48·79	28	64·47	58·89	56·79	54·41	51·13
29	61·12	55·76	52·72	50·68	48·87	29	64·89	60·10	56·82	54·41	51·21
30	59·65	57·61	53·01	50·81	48·94	30	65·61	60·58	57·06	54·55	51·30
31	60·24	57·61	53·44	51·01	49·03						
Means	54·94	52·83	50·66	49·22	48·10	Means	61·16	58·55	55·64	53·09	50·19

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1904.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1904.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
July	°	°	°	°	°	Aug.	°	°	°	°	°
1	64·72	61·41	57·31	54·66	51·37	1	69·01	65·17	62·47	59·65	54·52
2	63·59	61·03	57·60	54·75	51·44	2	70·72	65·26	62·47	59·61	54·55
3	61·34	61·09	57·79	54·90	51·51	3	73·11	66·24	62·58	59·65	54·66
4	63·43	60·51	57·90	55·04	51·55	4	72·48	67·10	62·82	59·74	54·81
5	61·54	60·69	57·97	55·15	51·62	5	71·19	66·67	63·00	59·77	54·90
6	64·72	60·42	58·06	55·29	51·73	6	66·58	66·52	63·16	59·86	54·93
7	63·77	61·93	58·08	55·40	51·76	7	65·52	65·16	63·23	59·95	55·02
8	67·73	61·52	58·30	55·51	51·85	8	66·34	64·98	63·16	60·06	55·13
9	69·10	62·62	58·48	55·62	51·96	9	66·47	65·41	63·07	60·13	55·18
10	69·44	64·02	58·73	55·76	52·02	10	67·23	65·14	63·01	60·13	55·26
11	72·39	64·98	59·14	55·89	52·09	11	62·87	64·81	63·01	60·19	55·35
12	71·08	65·39	59·58	56·05	52·18	12	63·46	63·32	62·98	60·24	55·44
13	69·93	65·77	60·01	56·23	52·23	13	64·60	63·14	62·71	60·26	55·49
14	69·75	65·53	60·40	56·44	52·32	14	63·01	63·52	62·51	60·22	55·56
15	69·80	65·57	60·69	56·70	52·41	15	63·10	62·94	62·35	60·21	55·62
16	70·88	65·88	60·93	56·95	52·50	16	63·43	62·51	62·19	60·17	55·69
17	70·77	66·25	61·16	57·16	52·59	17	60·98	62·58	62·01	60·12	55·74
18	72·81	67·06	61·41	57·36	52·68	18	59·61	61·72	61·88	60·08	55·80
19	72·86	67·33	61·75	57·60	52·79	19	60·24	61·05	61·63	59·99	55·83
20	69·76	67·46	62·02	57·78	52·90	20	61·95	60·69	61·34	59·90	55·87
21	70·63	66·34	62·26	57·96	52·99	21	59·49	61·05	61·14	59·83	55·94
22	69·76	66·60	62·38	58·21	53·10	22	59·11	60·73	60·94	59·76	55·96
23	71·02	66·69	62·53	58·44	53·26	23	58·95	59·97	60·78	59·65	55·99
24	69·01	66·60	62·60	58·60	53·38	24	59·59	59·81	60·58	59·56	56·05
25	70·12	66·51	62·69	58·78	53·51	25	59·47	59·59	60·37	59·47	56·07
26	67·17	66·29	62·78	58·91	53·62	26	61·66	59·81	60·12	59·32	56·08
27	64·31	65·30	62·89	59·14	53·76	27	63·88	60·39	60·04	59·25	56·10
28	66·13	64·27	62·87	59·38	53·91	28	63·05	61·32	60·01	59·14	56·10
29	64·53	64·69	62·71	59·50	54·14	29	66·20	61·90	60·08	59·04	56·12
30	66·11	64·33	62·60	59·58	54·30	30	64·90	62·60	60·21	58·95	56·12
31	67·06	64·62	62·49	59·61	54·39	31	63·00	62·60	60·46	58·96	56·10
Means	67·91	64·47	60·52	57·04	52·64	Means	64·23	63·02	61·82	59·77	55·55

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1904.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1904.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Sept.	°	°	°	°	°	Oct.	°	°	°	°	°
1	59·59	61·34	60·57	58·96	56·12	1	56·26	55·36	56·46	56·82	55·90
2	60·69	60·60	60·53	58·98	56·10	2	52·23	55·09	56·39	56·75	55·87
3	60·48	60·78	60·35	59·00	56·12	3	53·29	54·23	56·28	56·62	55·83
4	58·30	60·04	60·31	59·04	56·14	4	51·19	54·03	56·08	56·53	55·80
5	61·47	60·17	60·12	58·96	56·14	5	53·29	54·16	55·87	56·44	55·76
6	62·40	60·87	60·01	58·95	56·16	6	53·58	54·39	55·71	56·34	55·72
7	61·05	60·58	59·97	58·91	56·17	7	51·84	54·00	55·60	56·21	55·69
8	58·01	60·26	59·92	58·82	56·16	8	48·56	52·66	55·51	56·12	55·67
9	59·63	59·40	59·83	58·78	56·16	9	47·25	51·57	55·24	56·01	55·62
10	57·96	59·20	59·70	58·77	56·17	10	51·17	51·94	54·84	55·89	55·56
11	55·80	58·48	59·52	58·69	56·17	11	54·61	52·74	54·55	55·74	55·53
12	56·10	58·51	59·32	58·66	56·19	12	54·23	53·62	54·48	55·62	55·51
13	59·74	58·59	59·13	58·59	56·19	13	49·05	52·93	54·46	55·40	55·44
14	57·29	58·66	58·89	58·50	56·17	14	48·00	51·78	54·41	55·31	55·38
15	57·34	57·97	58·80	58·39	56·19	15	46·67	50·58	54·18	55·20	55·33
16	58·55	58·08	58·68	58·32	56·21	16	46·83	50·11	53·89	55·09	55·27
17	60·03	58·28	58·55	58·21	56·19	17	51·12	50·65	53·51	54·95	55·22
18	56·32	58·24	58·50	58·12	56·16	18	55·47	52·12	53·31	54·82	55·20
19	57·70	57·45	58·46	58·08	56·17	19	55·09	53·44	53·33	54·68	55·17
20	55·83	56·89	58·32	58·01	56·14	20	55·49	53·94	53·51	54·54	55·06
21	54·77	56·23	58·12	57·90	56·12	21	54·57	54·16	53·74	54·48	55·06
22	55·51	55·87	57·85	57·81	56·12	22	55·83	54·25	53·92	54·45	55·00
23	55·06	56·01	57·60	57·70	56·10	23	50·61	53·78	54·01	54·41	54·95
24	55·00	56·01	57·42	57·60	56·08	24	52·75	53·01	54·05	54·39	54·88
25	54·18	55·81	57·29	57·47	56·07	25	51·58	52·93	54·01	54·41	54·84
26	54·68	55·35	57·11	57·34	56·03	26	50·58	52·23	53·94	54·43	54·81
27	54·99	54·99	56·97	57·25	56·01	27	47·52	51·51	53·78	54·37	54·75
28	55·92	55·38	56·77	57·13	55·99	28	49·57	50·94	53·58	54·36	54·72
29	55·90	55·44	56·66	57·02	55·96	29	47·59	50·56	53·29	54·23	54·66
30	52·68	55·31	56·59	56·93	55·94	30	48·29	50·31	53·06	54·14	54·61
						31	48·33	50·29	52·81	54·05	54·57
Means	57·43	58·03	58·73	58·23	56·12	Means	51·37	52·69	54·45	55·25	55·27

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1904.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1904.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Nov.	°	°	°	°	°	Dec.	°	°	°	°	°
1	48·81	50·16	52·61	53·91	54·52	1	40·12	40·12	45·09	49·30	52·77
2	49·33	50·25	52·47	53·80	54·48	2	41·88	41·52	44·94	49·03	52·68
3	49·64	50·25	52·32	53·67	54·45	3	42·33	42·49	45·00	48·81	52·59
4	49·42	50·54	52·25	53·58	54·41	4	43·79	42·96	45·07	48·54	52·48
5	49·84	50·56	52·20	53·47	54·37	5	45·45	44·46	45·32	48·43	52·38
6	48·40	50·47	52·14	53·38	54·34	6	43·66	44·42	45·57	48·33	52·25
7	49·15	50·31	52·12	53·31	54·30	7	41·22	43·84	45·81	48·25	52·14
8	46·31	49·64	51·96	53·15	54·21	8	39·36	42·93	45·86	48·24	52·02
9	49·28	49·14	51·80	53·10	54·18	9	37·26	41·61	45·75	48·20	51·93
10	49·39	50·07	51·64	53·01	54·12	10	39·76	41·49	45·48	48·15	51·82
11	49·95	49·86	51·57	52·92	54·05	11	36·97	41·34	45·23	48·06	51·73
12	48·52	49·91	51·53	52·81	54·01	12	38·75	40·77	45·00	47·93	51·64
13	44·42	49·06	51·48	52·75	53·98	13	39·00	40·82	44·78	47·82	51·55
14	44·01	47·73	51·26	52·63	53·92	14	37·85	40·55	44·56	47·66	51·44
15	41·50	46·49	50·99	52·56	53·87	15	38·01	40·42	44·38	47·50	51·37
16	43·57	45·86	50·59	52·45	53·82	16	42·08	40·80	44·20	47·34	51·28
17	43·95	46·24	50·18	52·32	53·76	17	45·00	42·69	44·15	47·21	51·21
18	44·15	46·27	49·89	52·16	53·71	18	45·79	44·01	44·29	47·07	51·12
19	45·81	46·44	49·66	51·96	53·65	19	40·37	43·59	44·62	46·96	51·01
20	44·11	46·80	49·53	51·80	53·60	20	39·67	42·35	44·82	46·94	50·90
21	41·85	45·81	49·46	51·66	53·55	21	36·48	41·31	44·80	46·96	50·83
22	39·04	44·64	49·24	51·49	53·47	22	35·44	40·10	44·62	46·94	50·74
23	36·75	43·14	48·87	51·33	53·40	23	35·22	39·36	44·31	46·90	50·65
24	36·61	42·19	48·40	51·17	53·35	24	34·79	38·86	43·95	46·80	50·58
25	36·41	41·36	47·86	50·95	53·26	25	35·04	38·48	43·59	46·65	50·49
26	35·31	40·77	47·37	50·76	53·22	26	34·79	38·34	43·29	46·53	50·40
27	34·65	40·10	46·89	50·50	53·13	27	35·89	38·21	43·02	46·36	50·31
28	34·59	39·45	46·35	50·20	53·04	28	37·44	38·48	42·75	46·17	50·23
29	34·93	39·20	45·90	49·95	52·99	29	41·45	39·67	42·60	46·00	50·16
30	37·11	39·16	45·46	49·62	52·86	30	42·96	41·27	42·62	45·84	50·09
						31	39·97	41·63	42·85	45·73	50·02
Means	43·56	46·40	50·13	52·21	53·80	Means	39·61	41·25	44·46	47·44	51·32

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1905.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1905.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Jan.	°	°	°	°	°	Feb.	°	°	°	°	°
1	36·84	40·86	43·07	45·66	49·95	1	39·54	38·43	40·28	43·21	47·91
2	35·04	39·43	43·14	45·64	49·87	2	39·06	39·22	40·42	43·16	47·82
3	37·33	38·79	42·98	45·61	49·80	3	37·67	39·07	40·64	43·14	47·73
4	39·76	39·81	42·76	45·55	49·73	4	40·50	39·47	40·78	43·12	47·64
5	41·70	40·80	42·69	45·48	49·66	5	42·53	40·64	40·93	43·12	47·59
6	41·32	41·13	42·76	45·37	49·55	6	42·98	41·68	41·22	43·16	47·52
7	43·95	42·15	42·91	45·32	49·51	7	42·93	41·92	41·54	43·20	47·48
8	42·98	42·75	43·09	45·30	49·42	8	42·30	42·15	41·88	43·30	47·44
9	44·26	43·20	43·36	45·30	49·35	9	42·64	42·12	42·10	43·38	47·37
10	39·70	42·49	43·59	45·28	49·26	10	42·31	42·40	42·33	43·50	47·34
11	40·05	41·56	43·68	45·34	49·21	11	40·75	42·19	42·51	43·59	47·30
12	39·63	41·59	43·65	45·37	49·12	12	38·70	41·41	42·62	43·68	47·26
13	36·86	40·95	43·61	45·41	49·10	13	39·43	40·66	42·64	43·79	47·23
14	35·40	39·78	43·45	45·41	49·03	14	42·31	41·20	42·49	43·84	47·17
15	34·86	39·02	43·21	45·39	49·01	15	42·49	42·03	42·49	43·88	47·16
16	34·16	38·30	42·91	45·36	48·96	16	43·63	42·44	42·60	43·88	47·12
17	33·87	37·74	42·58	45·23	48·90	17	44·55	43·18	42·78	43·95	47·12
18	33·85	37·40	42·24	45·16	48·87	18	42·64	43·07	43·00	43·97	47·14
19	33·64	37·15	41·95	45·01	48·81	19	41·49	42·96	43·12	44·04	47·10
20	33·42	36·86	41·65	44·83	48·74	20	38·75	42·21	43·32	44·19	47·10
21	33·37	36·63	41·38	44·65	48·70	21	38·88	41·09	43·29	44·22	47·08
22	33·35	36·48	41·14	44·51	48·65	22	38·14	40·64	43·11	44·29	47·08
23	33·37	36·34	40·93	44·35	48·58	23	38·05	40·41	42·94	44·33	47·08
24	33·44	36·25	40·71	44·19	48·52	24	38·01	40·08	42·75	44·29	47·08
25	37·17	36·63	40·51	44·01	48·45	25	38·19	39·99	42·58	44·28	47·07
26	34·72	37·26	40·42	43·84	48·33	26	39·33	40·15	42·46	44·22	47·01
27	33·82	36·88	40·46	43·72	48·29	27	38·86	40·21	42·33	44·15	47·03
28	33·80	36·50	40·42	43·63	48·24	28	38·41	40·19	42·33	44·11	47·03
29	34·18	36·72	40·32	43·52	48·16						
30	35·98	36·91	40·26	43·45	48·09						
31	37·74	37·85	40·23	43·34	47·98						
Means	36·76	38·91	42·13	44·85	48·96	Means	40·54	41·11	42·20	43·75	47·29

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1905.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1905.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Mar.	°	°	°	°	°	Apr.	°	°	°	°	°
1	38·26	39·97	42·26	44·08	47·03	1	48·27	46·96	46·17	45·84	46·81
2	39·58	40·12	42·21	44·02	47·03	2	48·79	47·59	46·29	45·93	46·87
3	38·30	40·03	42·15	43·99	46·98	3	46·11	47·19	46·38	46·17	46·85
4	37·71	39·81	42·08	43·93	46·94	4	47·26	46·76	46·44	46·08	46·87
5	40·86	40·19	42·03	43·92	46·94	5	48·09	47·03	46·47	46·15	46·90
6	42·01	41·11	42·03	43·88	46·92	6	44·73	46·69	46·51	46·24	46·92
7	42·85	41·76	42·12	43·81	46·89	7	43·68	45·66	46·49	46·27	46·96
8	41·31	42·01	42·30	43·79	46·83	8	44·62	45·00	46·42	46·38	47·01
9	43·97	42·31	42·48	43·81	46·85	9	43·47	45·30	46·26	46·40	47·05
10	41·90	42·37	42·67	43·88	46·83	10	44·38	45·09	46·17	46·42	47·12
11	44·87	42·76	42·82	43·90	46·80	11	46·74	45·52	46·06	46·44	47·16
12	42·73	43·02	42·93	43·90	46·78	12	49·19	46·11	46·02	46·42	47·19
13	43·27	42·94	43·14	44·02	46·78	13	49·15	47·07	46·08	46·38	47·19
14	45·52	43·56	43·20	44·04	46·72	14	50·25	47·93	46·27	46·38	47·19
15	44·20	44·06	43·38	44·11	46·71	15	51·55	47·93	46·55	46·42	47·21
16	44·06	43·54	43·56	44·17	46·69	16	50·27	48·47	46·74	46·47	47·23
17	45·00	43·86	43·70	44·24	46·72	17	48·54	48·79	47·01	46·56	47·25
18	46·92	44·65	43·81	44·33	46·69	18	46·99	47·66	47·19	46·65	47·26
19	45·86	45·01	43·99	44·37	46·67	19	45·30	46·85	47·25	46·74	47·26
20	46·36	45·39	44·28	44·49	46·67	20	45·00	46·56	47·23	46·90	47·34
21	47·48	45·41	44·47	44·56	46·62	21	45·34	46·17	47·03	46·90	47·35
22	48·18	47·01	44·67	44·67	46·62	22	44·65	45·84	46·90	46·92	47·35
23	49·28	47·73	45·37	44·83	46·63	23	45·37	46·04	46·81	46·99	47·43
24	47·82	47·41	45·48	44·94	46·62	24	45·82	45·97	*46·76	*46·98*	*47·44*
25	47·93	47·30	45·61	45·09	46·63	25	46·67	46·15	46·71	46·96	47·46
26	46·49	46·81	45·70	45·21	46·63	26	49·66	46·67	46·71	46·99	47·50
27	47·14	46·85	45·79	45·36	46·67	27	50·22	47·80	46·74	46·96	47·53
28	46·47	46·44	45·86	45·45	46·67	28	50·34	48·33	46·94	46·99	47·55
29	48·24	46·49	45·91	45·55	46·71	29	50·52	48·33	47·17	47·01	47·59
30	48·78	46·89	45·93	45·66	46·74	30	48·92	48·87	47·37	47·10	47·59
31	47·91	47·12	46·02	45·73	46·76						
Means	44·56	44·00	43·80	44·44	46·77	Means	47·33	46·88	46·64	46·57	47·21

* Readings for III, IV, and V obtained by interpolation. Galvanometer not acting well.

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1905.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1905.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
May	°	°	°	°	°	June	°	°	°	°	°
1	50·05	48·74	47·53	47·14	47·59	1	62·31	61·48	53·64	51·03	49·08
2	51·84	49·14	47·71	47·21	47·61	2	60·98	61·47	54·05	51·31	49·21
3	51·91	49·28	47·86	47·28	47·62	3	61·56	61·43	54·27	51·53	49·26
4	50·65	49·57	48·04	47·37	47·64	4	60·26	58·37	54·43	51·67	49·35
5	51·33	49·32	48·18	47·48	47·66	5	57·61	58·15	54·64	51·87	49·44
6	54·07	49·98	48·31	47·57	47·70	6	55·06	56·80	54·81	52·07	49·53
7	55·18	51·24	48·49	47·66	47·73	7	53·26	55·44	54·79	52·23	49·59
8	55·35	51·82	48·78	47·77	47·75	8	56·25	54·70	54·57	52·36	49·66
9	55·02	51·58	49·10	47·88	47·79	9	56·59	55·47	54·34	52·43	49·77
10	56·73	52·27	49·37	48·02	47·82	10	57·16	55·29	54·27	52·48	49·84
11	54·88	52·95	49·68	48·20	47·88	11	55·96	56·05	54·21	52·50	49·93
12	54·86	52·66	49·96	48·36	47·89	12	57·27	55·74	54·23	52·50	49·96
13	54·19	52·29	50·18	48·51	47·95	13	62·53	56·39	54·25	52·56	50·05
14	53·55	52·79	50·32	48·67	48·00	14	58·95	57·72	54·37	52·59	50·14
15	56·55	52·48	50·47	48·83	48·04	15	61·48	57·20	54·61	52·63	50·20
16	57·79	53·11	50·58	48·96	48·07	16	64·44	58·59	54·77	52·72	50·25
17	58·33	53·56	50·79	49·08	48·11	17	63·75	59·95	55·06	52·79	50·34
18	58·19	54·19	51·04	49·23	48·18	18	63·03	59·99	55·49	52·95	50·40
19	56·01	54·72	51·33	49·39	48·25	19	63·37	59·85	55·83	53·10	50·43
20	55·18	54·79	51·64	49·59	48·34	20	60·26	59·79	56·08	53·22	50·50
21	53·85	54·54	51·85	49·73	48·38	21	61·81	59·14	56·25	53·42	50·58
22	53·35	53·29	52·00	49·91	48·43	22	66·70	59·31	56·32	53·58	50·65
23	53·96	52·68	52·02	50·05	48·49	23	69·87	61·61	56·44	53·71	50·74
24	55·33	53·01	51·93	50·18	48·56	24	65·16	62·46	56·80	53·82	50·81
25	55·44	53·49	51·89	50·27	48·61	25	65·35	62·24	57·22	53·96	50·88
26	57·60	53·85	51·94	50·36	48·69	26	66·58	62·60	57·58	54·16	50·94
27	57·60	54·14	52·07	50·45	48·76	27	68·59	62·82	57·88	54·34	51·01
28	59·47	54·82	52·20	50·52	48·83	28	67·44	63·21	58·17	54·55	51·10
29	63·46	56·17	52·41	50·61	48·88	29	65·75	63·25	58·44	54·75	51·17
30	61·95	57·58	52·77	50·72	48·97	30	63·23	62·65	58·71	54·99	51·24
31	62·53	57·88	53·24	50·88	49·03						
Means	55·68	52·84	50·44	48·96	48·17	Means	61·75	59·31	55·55	52·93	50·20

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1905.	Depth.					1905.	Depth.				
	I.	II.	III.	IV.	V.		I.	II.	III.	IV.	V.
	ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½		ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½
July	°	°	°	°	°	Aug.	°	°	°	°	°
1	62·53	61·90	58·84	55·20	51·31	1	66·88	65·25	63·00	59·72	54·52
2	64·53	61·74	58·87	55·42	51·42	2	67·50	64·71	62·96	59·81	54·63
3	66·25	62·33	58·93	55·62	51·51	3	63·27	64·96	62·87	59·86	54·72
4	65·73	62·64	58·98	55·76	51·66	4	62·76	63·97	62·78	59·90	54·82
5	66·45	62·49	59·16	55·92	51·84	5	66·27	63·34	62·58	59·92	54·93
6	65·86	62·83	59·25	56·01	51·91	6	63·57	63·09	62·44	59·95	54·99
7	66·22	61·92	59·38	56·16	52·00	7	62·60	62·92	62·22	59·94	55·06
8	69·96	63·09	59·43	56·26	52·14	8	68·52	63·09	62·06	59·94	55·13
9	68·41	64·24	59·61	56·43	52·25	9	64·72	64·08	61·99	59·90	55·22
10	67·42	64·54	59·88	56·52	52·29	10	64·78	63·46	61·95	59·83	55·27
11	69·27	64·45	60·21	56·71	52·41	11	63·12	63·25	61·92	59·81	55·35
12	70·16	65·01	60·39	56·84	52·50	12	63·03	62·60	61·81	59·77	55·38
13	69·42	65·43	60·66	56·98	52·57	13	64·22	62·82	61·74	59·76	55·45
14	72·46	65·95	60·96	57·20	52·70	14	66·16	62·94	61·65	59·70	55·49
15	72·34	66·63	61·23	57·33	52·75	15	65·93	63·57	61·63	59·67	55·53
16	68·67	66·83	61·56	57·52	52·84	16	66·78	63·90	61·70	59·68	55·58
17	67·78	65·93	61·88	57·72	52·90	17	65·79	63·82	61·75	59·58	55·63
18	66·58	65·59	62·01	57·96	53·02	18	64·98	64·11	61·83	59·65	55·67
19	67·64	64·67	62·06	58·14	53·13	19	63·36	63·23	61·92	59·70	55·74
20	69·51	65·16	62·02	58·32	53·24	20	62·62	62·96	61·90	59·74	55·80
21	69·73	65·19	62·06	58·44	53·35	21	64·80	62·82	61·86	59·83	55·83
22	71·15	65·97	62·17	58·64	53·51	22	65·50	62·98	61·70	59·76	55·87
23	68·27	66·56	62·28	58·73	53·60	23	61·39	62·74	61·68	59·77	55·89
24	66·65	65·70	62·44	58·80	53·67	24	62·58	61·61	61·61	59·76	55·94
25	68·65	65·71	62·53	58·93	53·78	25	62·13	61·54	61·43	59·76	55·96
26	70·23	66·02	62·56	59·04	53·87	26	62·31	61·65	61·25	59·72	55·98
27	69·62	66·65	62·65	59·16	53·94	27	60·40	61·61	61·11	59·67	56·03
28	67·95	66·11	62·82	59·25	54·07	28	60·73	61·12	61·00	59·63	56·05
29	68·83	65·95	62·89	59·36	54·18	29	59·41	60·73	60·87	59·58	56·10
30	67·33	65·91	62·92	59·49	54·28	30	58·93	60·15	60·71	59·50	56·12
31	67·82	65·55	63·00	59·63	54·41	31	59·02	59·38	60·44	59·43	56·12
Means	68·17	64·80	61·08	57·53	52·87	Means	63·68	62·85	61·82	59·75	55·51

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1905.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1905.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Sept.	°	°	°	°	°	Oct.	°	°	°	°	°
1	58·59	59·13	60·19	59·32	56·16	1	51·19	55·04	56·41	56·79	55·94
2	60·04	59·34	59·95	59·23	56·19	2	52·25	54·36	56·34	56·71	55·92
3	61·11	59·99	59·77	59·14	56·21	3	52·83	53·94	56·12	56·62	55·87
4	64·22	60·85	59·72	59·02	56·21	4	53·64	54·27	55·89	56·50	55·83
5	62·69	61·27	59·79	58·91	56·23	5	52·03	53·96	55·78	56·41	55·80
6	63·66	61·57	59·90	58·86	56·25	6	48·74	52·83	55·63	56·32	55·78
7	61·47	61·66	59·99	58·82	56·25	7	49·30	51·49	55·35	56·16	55·74
8	60·30	60·26	60·08	58·84	56·26	8	49·96	51·84	55·00	56·07	55·69
9	58·96	59·76	60·03	58·84	56·26	9	51·44	52·11	54·68	55·90	55·65
10	58·75	59·38	59·83	58·82	56·25	10	52·25	52·56	54·50	55·74	55·60
11	58·48	59·23	59·65	58·80	56·26	11	51·98	52·72	54·36	55·56	55·56
12	58·86	58·53	59·50	58·71	56·26	12	51·31	52·66	54·30	55·42	55·51
13	58·91	58·50	59·27	58·64	56·25	13	51·69	52·56	54·21	55·29	55·45
14	57·45	58·10	59·11	58·57	56·26	14	48·02	51·60	54·14	55·18	55·40
15	56·77	57·43	58·95	58·48	56·26	15	49·48	51·24	54·00	55·09	55·36
16	57·70	57·51	58·73	58·42	56·28	16	47·43	50·92	53·76	54·99	55·31
17	56·26	57·43	58·53	58·32	56·25	17	44·62	49·42	53·55	54·84	55·24
18	56·07	57·31	58·39	58·21	56·25	18	44·91	48·54	53·20	54·72	55·18
19	56·19	56·98	58·23	58·08	56·23	19	44·37	48·20	52·79	54·57	55·13
20	54·79	56·70	58·06	57·99	56·21	20	42·87	47·44	52·43	54·39	55·08
21	55·27	56·14	57·90	57·88	56·19	21	42·40	46·80	52·00	54·18	55·02
22	56·19	56·30	57·70	57·78	56·17	22	40·24	46·20	51·64	54·01	54·99
23	55·26	56·53	57·56	57·70	56·16	23	41·29	45·52	51·19	53·76	54·93
24	53·01	55·81	57·51	57·63	56·16	24	42·78	45·57	50·79	53·51	54·84
25	52·86	55·29	57·29	57·49	56·14	25	40·59	45·39	50·43	53·26	54·75
26	52·81	54·99	57·11	57·40	56·12	26	40·86	44·92	50·13	53·02	54·68
27	53·83	54·91	56·86	57·31	56·10	27	44·73	45·23	49·80	52·77	54·61
28	55·78	54·93	56·68	57·16	56·07	28	43·48	45·70	49·59	52·54	54·52
29	56·66	55·54	56·52	57·04	56·03	29	46·02	46·15	49·48	52·32	54·43
30	55·31	55·83	56·46	56·89	55·99	30	46·63	46·85	49·41	52·12	54·36
						31	45·79	47·10	49·42	51·94	54·25
Means	57·61	57·91	58·64	58·28	56·20	Means	47·26	49·78	53·11	54·73	55·24

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1905.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1905.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Nov.	°	°	°	°	°	Dec.	°	°	°	°	°
1	45·25	46·72	49·46	51·78	54·16	1	41·27	42·76	45·30	47·82	51·57
2	47·25	47·07	49·42	51·69	54·05	2	40·71	42·51	45·27	47·73	51·46
3	46·49	47·34	49·42	51·58	54·00	3	39·45	42·57	45·27	47·70	51·40
4	44·28	46·90	49·44	51·49	53·89	4	39·06	41·76	45·10	47·55	51·22
5	45·41	46·71	49·41	51·42	53·82	5	39·69	41·52	44·98	47·50	51·15
6	43·56	46·33	49·28	51·31	53·71	6	40·59	41·97	44·82	47·41	51·06
7	41·31	45·61	49·15	51·22	53·62	7	44·73	42·71	44·76	47·32	50·99
8	41·23	44·67	48·90	51·12	53·49	8	46·29	44·22	44·82	47·26	50·92
9	42·37	44·56	48·61	51·01	53·42	9	42·28	44·13	45·05	47·21	50·86
10	42·31	44·46	48·36	50·88	53·35	10	38·39	43·07	45·21	47·16	50·79
11	46·26	45·14	48·18	50·76	53·29	11	36·54	41·50	45·19	47·16	50·70
12	45·93	46·02	48·07	50·59	53·24	12	36·18	40·39	44·96	47·14	50·63
13	44·69	46·09	48·06	50·41	53·10	13	37·71	40·55	44·64	47·12	50·58
14	44·33	45·81	48·06	50·31	53·02	14	39·72	40·66	44·35	46·99	50·50
15	41·76	45·07	48·06	50·20	52·97	15	40·35	41·29	44·19	46·90	50·43
16	38·70	44·01	47·93	50·13	52·86	16	40·44	41·49	44·13	46·76	50·38
17	37·11	42·73	47·64	50·04	52·77	17	39·63	41·52	44·11	46·67	50·31
18	37·53	41·83	47·30	49·93	52·70	18	40·39	41·50	44·10	46·58	50·23
19	37·31	41·50	46·90	49·80	52·63	19	40·37	41·56	44·06	46·51	50·16
20	37·38	41·25	46·47	49·60	52·54	20	39·22	41·32	44·04	46·44	50·09
21	35·47	40·69	46·15	49·42	52·48	21	42·49	41·76	44·01	46·38	50·04
22	36·23	40·14	45·77	49·21	52·39	22	42·91	42·62	44·02	46·35	49·98
23	42·73	41·14	45·39	48·96	52·29	23	41·67	42·78	44·13	46·31	49·93
24	40·50	42·01	45·25	48·76	52·23	24	40·98	42·57	44·26	46·27	49·89
25	38·52	41·61	45·25	48·52	52·12	25	40·68	42·22	44·28	46·26	49·80
26	43·38	41·94	45·14	48·34	52·02	26	39·83	42·08	44·28	46·26	49·75
27	41·92	43·21	45·14	48·20	51·94	27	38·86	41·79	44·22	46·20	49·66
28	40·80	42·66	45·19	48·04	51·82	28	39·76	41·27	44·13	46·20	49·60
29	42·69	42·93	45·28	47·98	51·76	29	41·25	41·70	44·02	46·15	49·55
30	40·53	42·78	45·28	47·88	51·66	30	40·53	42·04	43·95	46·11	49·51
						31	36·68	41·27	43·99	46·06	49·46
Means	41·77	43·96	47·40	50·02	52·91	Means	40·28	41·97	44·50	46·82	50·41

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1906.	Depth.					1906.	Depth.				
	I.	II.	III.	IV.	V.		I.	II.	III.	IV.	V.
	ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½		ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½
Jan.	°	°	°	°	°	Feb.	°	°	°	°	°
1	35·01	39·79	43·86	45·99	49·41	1	42·24	41·92	43·25	44·64	47·86
2	37·81	39·07	43·57	45·95	49·37	2	41·85	42·04	43·23	44·67	47·82
3	39·45	39·92	43·27	45·88	49·32	3	40·71	41·99	43·29	44·69	47·79
4	42·28	41·02	43·11	45·81	49·28	4	37·47	41·25	43·30	44·69	47·75
5	43·97	42·26	43·14	45·64	49·23	5	35·96	40·12	43·23	44·74	47·75
6	43·54	43·05	43·30	45·55	49·19	6	34·70	39·25	43·00	44·76	47·71
7	39·90	42·66	43·52	45·43	49·12	7	34·75	38·39	42·69	44·69	47·70
8	40·95	42·17	43·65	45·37	49·05	8	36·27	38·26	42·37	44·64	47·66
9	40·96	41·79	43·72	45·39	48·97	9	35·10	38·30	42·08	44·51	47·62
10	39·63	41·68	43·65	45·37	48·87	10	36·91	37·85	41·85	44·38	47·59
11	36·91	40·96	43·61	45·36	48·79	11	37·58	38·70	41·67	44·29	47·57
12	40·57	40·86	43·47	45·34	48·72	12	35·44	38·50	41·52	44·13	47·52
13	42·75	41·76	43·34	45·32	48·69	13	34·66	38·07	41·47	44·02	47·50
14	38·95	41·85	43·38	45·32	48·65	14	34·52	37·58	41·31	43·92	47·43
15	42·01	41·85	43·38	45·23	48·60	15	36·95	37·72	41·13	43·81	47·41
16	40·17	41·97	43·39	45·19	48·54	16	39·70	38·37	41·00	43·70	47·35
17	40·68	42·03	43·43	45·14	48·49	17	40·87	39·81	41·00	43·61	47·32
18	41·61	41·79	43·43	45·12	48·51	18	39·43	40·14	41·13	43·52	47·25
19	38·93	41·61	43·45	45·12	48·38	19	39·72	40·15	41·32	43·45	47·21
20	36·12	40·66	43·43	45·10	48·34	20	38·82	40·08	41·45	43·41	47·14
21	39·09	40·10	43·27	45·09	48·31	21	36·84	39·65	41·56	43·41	47·08
22	38·07	40·44	43·05	45·05	48·25	22	35·19	38·89	41·54	43·41	47·05
23	35·83	39·90	42·94	45·00	48·20	23	36·09	38·48	41·45	43·41	46·99
24	36·14	39·09	42·78	44·91	48·15	24	35·06	38·12	41·29	43·39	46·94
25	39·63	39·27	42·55	44·83	48·13	25	38·17	38·01	41·13	43·34	46·89
26	41·20	40·21	42·39	44·76	48·11	26	38·48	38·80	40·98	43·29	46·83
27	42·40	41·23	42·40	44·69	48·09	27	39·76	39·54	41·00	43·23	46·80
28	43·57	42·15	42·55	44·62	48·06	28	38·32	39·76	41·07	43·16	46·72
29	44·04	42·82	42·78	44·56	48·02						
30	40·77	42·66	43·05	44·58	47·97						
31	39·60	41·88	43·21	44·58	47·91						
Means	40·08	41·24	43·23	45·20	48·60	Means	37·56	39·28	41·83	43·96	47·37

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1906.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1906.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Mar.	°	°	°	°	°	Apr.	°	°	°	°	°
1	40·75	39·88	41·18	43·11	46·69	1	42·21	41·92	42·64	44·08	46·40
2	43·11	40·96	41·32	43·14	46·67	2	44·46	42·71	42·75	44·06	46·40
3	39·20	40·82	41·47	43·09	46·62	3	43·97	42·98	42·93	44·04	46·40
4	39·94	40·66	41·63	43·14	46·60	4	44·31	43·30	43·09	44·02	46·35
5	40·55	41·18	41·76	43·20	46·56	5	44·83	43·65	43·30	44·08	46·35
6	45·43	41·79	41·83	43·21	46·51	6	45·84	44·04	43·45	44·11	46·31
7	45·25	43·00	42·03	43·25	46·49	7	46·98	44·73	43·66	44·17	46·31
8	45·73	43·93	42·37	43·29	46·44	8	47·05	45·52	43·95	44·26	46·33
9	43·83	43·77	42·73	43·39	46·44	9	48·49	45·99	44·24	44·35	46·31
10	42·44	43·07	43·00	43·50	46·40	10	48·58	46·42	44·55	44·47	46·27
11	44·04	42·98	43·12	43·65	46·42	11	49·66	46·96	44·87	44·60	46·27
12	40·71	42·98	43·21	43·77	46·40	12	51·03	47·71	45·19	44·76	46·29
13	40·35	41·52	43·27	43·86	46·38	13	50·05	48·15	45·54	44·91	46·31
14	40·42	41·36	43·14	43·92	46·36	14	51·82	48·87	45·90	45·10	46·33
15	43·63	42·03	43·00	43·95	46·35	15	48·52	48·74	46·27	45·28	46·35
16	44·98	43·03	42·96	43·97	46·35	16	48·69	48·56	46·56	45·50	46·38
17	46·65	43·86	43·14	44·02	46·38	17	51·04	49·10	46·76	45·66	46·42
18	46·18	44·89	43·39	44·06	46·40	18	47·41	48·63	46·99	45·88	46·45
19	42·57	44·26	43·70	44·13	46·42	19	46·80	47·46	47·10	46·02	46·49
20	41·76	43·27	43·88	44·19	46·42	20	45·63	46·94	47·10	46·18	46·53
21	41·97	42·76	43·86	44·28	46·42	21	49·60	47·10	47·01	46·35	46·60
22	40·75	42·31	43·74	44·35	46·36	22	48·49	48·04	46·99	46·45	46·67
23	38·89	41·68	43·61	44·37	46·35	23	47·73	47·95	47·08	46·51	46·72
24	39·15	41·31	43·45	44·38	46·35	24	46·62	47·19	47·17	46·58	46·76
25	39·20	41·02	43·29	44·38	46·36	25	47·64	47·21	47·17	46·65	46·81
26	39·15	40·89	43·14	44·38	46·40	26	45·46	46·92	47·14	46·72	46·85
27	38·70	40·66	43·00	44·37	46·40	27	47·28	46·40	47·10	46·80	46·89
28	39·38	40·55	42·85	44·31	46·42	28	47·08	47·35	47·01	46·80	46·92
29	41·49	40·66	42·73	44·24	46·42	29	45·63	47·10	47·03	46·81	46·96
30	39·29	41·13	42·66	44·19	46·42	30	46·78	46·76	47·07	46·85	46·99
31	42·37	41·14	42·64	44·10	46·36						
Means	41·87	42·04	42·81	43·84	46·44	Means	47·32	46·48	45·59	45·40	46·51

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1906.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1906.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
May	°	°	°	°	°	June	°	°	°	°	°
1	48·85	46·89	47·05	46·87	47·03	1	55·67	55·11	52·23	50·09	48·58
2	46·67	47·39	47·05	46·90	47·07	2	54·05	54·25	52·39	50·25	48·63
3	49·55	47·28	47·08	46·92	47·12	3	57·04	54·05	52·43	50·41	48·69
4	50·41	47·98	47·14	46·98	47·17	4	57·24	55·11	52·41	50·49	48·72
5	51·15	48·31	47·25	46·99	47·19	5	59·88	55·09	52·56	50·67	48·79
6	50·04	48·92	47·41	47·05	47·23	6	62·74	56·07	52·74	50·76	48·87
7	53·64	49·28	47·59	47·12	47·25	7	63·55	56·89	52·99	50·86	48·94
8	59·27	50·67	47·86	47·21	47·32	8	65·70	57·96	53·33	50·99	49·01
9	56·50	52·81	48·22	47·30	47·35	9	64·71	59·05	53·71	51·13	49·06
10	52·75	52·38	48·74	47·43	47·37	10	63·43	59·45	54·12	51·31	49·10
11	51·42	51·37	49·10	47·59	47·41	11	62·13	59·99	54·64	51·57	49·19
12	56·10	50·99	49·32	47·77	47·46	12	65·26	59·83	55·04	51·76	49·26
13	59·00	52·38	49·41	47·95	47·50	13	62·92	60·62	55·38	52·03	49·33
14	60·64	53·85	49·64	48·09	47·53	14	59·14	59·70	55·72	52·27	49·41
15	57·02	54·39	50·05	48·22	47·55	15	57·65	58·73	55·90	52·54	49·48
16	55·60	54·16	50·49	48·42	47·61	16	57·45	57·65	55·92	52·75	49·59
17	52·43	53·10	50·81	48·63	47·66	17	57·42	57·34	55·81	52·92	49·66
18	51·39	51·89	50·90	48·85	47·71	18	61·74	57·51	55·71	53·06	49·75
19	53·80	51·55	50·83	49·01	47·77	19	65·46	57·99	55·65	53·19	49·86
20	50·95	51·93	50·76	49·15	47·84	20	68·22	59·65	55·71	53·28	49·96
21	50·04	50·77	50·67	49·21	47·93	21	67·80	61·20	55·94	53·37	50·05
22	50·56	50·67	50·59	49·33	48·00	22	66·92	61·79	56·37	53·46	50·16
23	54·05	50·81	50·49	49·41	48·06	23	70·16	62·31	56·80	53·60	50·25
24	56·91	51·94	50·43	49·44	48·16	24	65·70	63·21	57·22	53·80	50·34
25	55·51	52·27	50·50	49·48	48·20	25	63·90	62·19	57·65	54·01	50·41
26	53·56	52·34	50·63	49·50	48·25	26	64·58	61·56	57·90	54·25	50·52
27	55·89	52·88	50·76	49·55	48·31	27	64·04	61·52	58·01	54·48	50·61
28	59·36	53·85	50·90	49·60	48·36	28	62·98	61·50	57·92	54·68	50·70
29	60·96	55·45	51·17	49·68	48·42	29	57·24	60·17	58·17	54·86	50·79
30	61·50	55·47	51·58	49·77	48·45	30	59·45	58·28	58·12	55·11	50·94
31	58·69	55·81	51·93	49·91	48·51						
Means	54·33	51·61	49·56	48·37	47·70	Means	62·14	58·86	55·28	52·47	49·62

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1906.	Depth.					1906.	Depth.				
	I.	II.	III.	IV.	V.		I.	II.	III.	IV.	V.
	ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½		ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½
July	°	°	°	°	°	Aug.	°	°	°	°	°
1	61·00	58·87	57·87	55·24	51·06	1	67·53	65·14	61·34	58·23	53·73
2	63·07	59·52	57·70	55·33	51·21	2	67·73	65·05	61·52	58·33	53·80
3	65·64	60·44	57·70	55·35	51·35	3	68·20	65·12	61·65	58·44	53·87
4	68·38	61·48	57·85	55·40	51·46	4	66·29	64·56	61·75	58·55	53·94
5	70·32	62·78	58·10	55·45	51·55	5	64·49	64·22	61·83	58·66	54·01
6	69·31	63·88	58·46	55·53	51·62	6	68·00	64·65	61·79	58·77	54·10
7	68·02	63·79	58·91	55·65	51·73	7	69·93	65·46	61·81	58·82	54·19
8	64·63	63·82	59·23	55·81	51·80	8	72·64	66·18	62·01	58·91	54·27
9	67·44	63·72	59·49	55·99	51·84	9	70·00	66·56	62·22	58·98	54·36
10	66·15	63·70	59·70	56·16	51·93	10	68·05	66·36	62·47	59·13	54·41
11	63·91	62·85	59·86	56·34	52·02	11	66·72	65·50	62·58	59·22	54·46
12	62·69	62·11	59·92	56·50	52·11	12	64·31	64·96	62·67	59·36	54·54
13	62·24	61·56	59·86	56·66	52·18	13	66·13	64·58	62·60	59·45	54·63
14	65·46	61·20	59·72	56·77	52·27	14	64·54	64·45	62·47	59·54	54·68
15	62·89	62·29	59·67	56·88	52·39	15	63·90	63·75	62·40	59·61	54·75
16	61·72	61·59	59·68	56·95	52·50	16	63·36	63·14	62·28	59·67	54·82
17	65·53	61·70	59·67	57·00	52·59	17	63·34	62·89	62·10	59·65	54·90
18	67·93	62·73	59·65	57·06	52·68	18	61·14	62·56	61·90	59·65	54·97
19	64·98	63·84	59·79	57·09	52·77	19	59·94	61·93	61·74	59·63	55·04
20	63·12	62·83	60·01	57·15	52·86	20	62·51	62·24	61·52	59·59	55·11
21	62·29	62·22	60·12	57·25	52·92	21	67·28	62·64	61·36	59·54	55·17
22	65·32	62·28	60·10	57·33	53·01	22	69·51	63·59	61·34	59·49	55·22
23	67·50	63·10	60·06	57·38	53·04	23	69·87	64·98	61·43	59·41	55·29
24	66·58	63·45	60·17	57·45	53·11	24	69·28	65·68	61·68	59·43	55·35
25	67·10	63·36	60·31	57·51	53·19	25	66·15	65·52	62·04	59·58	55·47
26	66·88	63·79	60·46	57·61	53·28	26	62·71	64·44	62·26	59·63	55·51
27	67·15	64·04	60·60	57·69	53·33	27	65·66	64·24	62·29	59·72	55·58
28	68·16	63·91	60·76	57·78	53·42	28	66·45	64·15	62·20	59·79	55·58
29	65·89	64·60	60·91	57·88	53·49	29	67·39	64·17	62·22	59·86	55·67
30	68·97	64·15	61·07	58·01	53·58	30	66·65	64·26	62·24	59·88	55·71
31	70·14	65·05	61·23	58·15	53·67	31	69·40	64·87	62·26	59·94	55·78
Means	65·82	62·73	59·63	56·72	52·45	Means	66·42	64·45	62·00	59·31	54·80

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1906.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1906.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Sept.	°	°	°	°	°	Oct.	°	°	°	°	°
1	71·40	65·82	62·35	59·95	55·83	1	55·80	56·86	58·53	58·84	56·75
2	71·10	66·51	62·53	60·01	55·89	2	58·24	57·54	58·35	58·66	56·71
3	71·47	66·92	62·80	60·06	55·92	3	59·07	58·14	58·26	58·33	56·68
4	69·66	67·28	63·09	60·19	56·01	4	59·45	58·41	58·28	58·37	56·64
5	69·44	66·69	63·28	60·24	55·99	5	60·15	58·86	58·33	58·28	56·64
6	68·92	66·61	63·43	60·39	56·07	6	58·78	58·87	58·42	58·23	56·64
7	68·92	66·45	63·52	60·49	56·12	7	58·73	58·69	58·44	58·14	56·59
8	69·24	66·22	63·57	60·62	56·17	8	58·66	58·71	58·42	58·08	56·55
9	67·62	66·47	63·57	60·66	56·17	9	56·70	58·19	58·42	58·05	56·50
10	65·08	65·80	63·63	60·76	56·25	10	58·06	57·83	58·33	57·99	56·46
11	63·23	64·63	63·64	60·87	56·32	11	58·35	58·03	58·24	57·96	56·44
12	62·08	64·00	63·48	60·94	56·39	12	58·30	58·37	58·19	57·92	56·41
13	62·28	63·57	63·27	60·96	56·44	13	55·31	57·60	58·19	57·87	56·41
14	61·70	62·92	62·98	60·94	56·50	14	50·56	55·65	58·10	57·85	56·43
15	62·56	62·55	62·78	60·94	56·55	15	51·98	53·92	57·74	57·76	56·37
16	57·74	61·90	62·53	60·87	56·59	16	53·44	54·30	57·24	57·65	56·35
17	56·61	60·37	62·20	60·78	56·64	17	54·03	54·39	56·86	57·54	56·32
18	59·34	60·04	61·84	60·71	56·70	18	53·55	54·64	56·62	57·36	56·30
19	60·53	60·40	61·45	60·58	56·73	19	52·03	54·12	56·43	57·18	56·26
20	59·50	60·44	61·20	60·44	56·75	20	50·22	53·28	56·17	57·02	56·23
21	57·34	60·04	61·00	60·31	56·80	21	53·58	53·37	55·89	56·88	56·21
22	59·63	59·76	60·76	60·17	56·82	22	56·26	54·52	55·63	56·70	56·17
23	57·42	59·65	60·57	60·03	56·84	23	56·66	55·45	55·60	56·52	56·12
24	57·25	58·98	60·40	59·90	56·84	24	55·99	55·53	55·78	56·44	56·14
25	56·73	58·53	60·13	59·77	56·86	25	51·46	54·63	55·83	56·37	56·12
26	56·75	57·94	59·85	59·61	56·84	26	49·06	53·04	55·78	56·30	56·07
27	55·49	57·38	59·56	59·43	56·80	27	50·27	52·52	55·53	56·25	56·01
28	55·18	57·09	59·32	59·23	56·82	28	49·15	51·84	55·20	56·17	55·98
29	55·06	56·79	59·05	59·16	56·80	29	47·17	51·37	54·84	56·01	55·90
30	54·09	56·68	58·78	59·00	56·77	30	46·67	50·22	54·50	55·87	55·85
						31	46·81	49·78	54·05	55·67	55·81
Means	62·11	62·28	61·89	60·27	56·47	Means	54·34	55·44	56·97	57·36	56·32

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1906.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1906.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Nov.	°	°	°	°	°	Dec.	°	°	°	°	°
1	48·34	49·82	53·62	55·47	55·76	1	44·80	48·20	49·60	50·79	53·17
2	48·99	50·16	53·31	55·26	55·71	2	42·98	46·83	49·64	50·83	53·15
3	46·15	49·77	53·10	55·06	55·63	3	47·03	46·90	49·37	50·77	53·01
4	45·61	49·10	52·92	54·86	55·60	4	47·03	47·25	49·15	50·70	52·92
5	46·98	48·78	52·63	54·68	55·53	5	46·42	47·73	49·12	50·70	52·86
6	44·46	48·51	52·34	54·48	55·45	6	43·59	46·94	49·22	50·76	52·93
7	46·96	48·11	52·03	54·27	55·36	7	41·00	45·86	49·05	50·61	52·84
8	48·13	48·54	51·69	54·03	55·31	8	40·77	44·53	48·85	50·59	52·81
9	48·83	49·08	51·30	53·73	55·22	9	41·14	44·44	48·52	50·56	52·81
10	47·10	48·87	51·21	53·44	55·09	10	37·31	43·32	48·15	50·40	52·74
11	44·08	48·11	51·17	53·28	54·99	11	36·32	41·95	47·75	50·25	52·66
12	44·46	47·41	51·01	53·11	54·91	12	39·31	41·85	47·28	50·09	52·61
13	42·30	46·51	50·77	52·97	54·82	13	37·45	41·76	46·87	49·89	52·57
14	43·59	46·27	50·47	52·83	54·75	14	37·20	41·23	46·51	49·68	52·50
15	44·31	46·17	50·14	52·65	54·64	15	36·32	40·73	46·15	49·44	52·43
16	43·72	46·33	49·93	52·47	54·55	16	38·12	40·50	45·81	49·23	52·38
17	45·73	46·60	49·73	52·27	54·48	17	41·38	41·49	45·46	48·97	52·29
18	43·48	46·60	49·60	52·12	54·39	18	42·66	42·39	45·30	48·74	52·21
19	41·29	45·52	49·50	51·98	54·30	19	43·45	43·32	45·32	48·51	52·11
20	40·64	44·73	49·28	51·80	54·19	20	42·03	43·54	45·45	48·33	52·03
21	44·28	44·46	48·90	51·60	54·10	21	40·50	43·03	45·57	48·22	51·94
22	48·78	46·02	48·54	51·39	54·03	22	38·80	42·22	45·55	48·11	51·84
23	48·87	47·48	48·47	51·19	53·92	23	37·38	41·59	45·48	48·04	51·75
24	48·58	48·16	48·70	51·04	53·85	24	35·82	40·60	45·23	47·95	51·64
25	48·43	48·40	48·92	50·94	53·74	25	36·99	40·30	44·98	47·86	51·57
26	47·71	48·34	49·15	50·86	53·64	26	36·48	39·97	44·67	47·73	51·48
27	48·99	48·38	49·28	50·85	53·55	27	36·55	39·69	44·37	47·55	51·35
28	47·23	48·22	49·37	50·85	53·46	28	36·50	39·51	44·13	47·39	51·26
29	48·70	48·38	49·44	50·83	53·35	29	36·19	39·33	43·90	47·23	51·19
30	49·59	49·06	49·53	50·88	53·31	30	36·07	39·07	43·68	47·07	51·10
						31	36·05	38·88	43·43	46·89	51·01
Means	46·21	47·73	50·54	52·71	54·59	Means	39·79	42·74	46·57	49·16	52·23

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1907.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1907.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Jan.	°	°	°	°	°	Feb.	°	°	°	°	°
1	36·37	38·71	43·23	46·71	50·92	1	33·67	36·59	40·82	44·22	48·61
2	40·35	39·88	42·98	46·54	50·85	2	33·42	36·39	40·69	44·10	48·56
3	38·62	40·14	42·91	46·33	50·74	3	33·21	36·21	40·53	43·97	48·49
4	36·25	39·70	42·94	46·13	50·63	4	33·19	36·05	40·39	43·83	48·43
5	38·61	39·18	42·89	46·00	50·50	5	33·17	35·92	40·23	43·68	48·33
6	40·12	40·32	42·78	45·88	50·41	6	33·24	35·85	40·08	43·56	48·27
7	38·12	40·42	42·87	45·81	50·31	7	33·31	35·80	39·96	43·45	48·18
8	40·62	40·59	42·91	45·72	50·20	8	33·42	35·76	39·83	43·30	48·11
9	41·09	41·16	42·94	45·63	50·09	9	34·66	35·83	39·72	43·20	48·06
10	41·79	41·61	43·07	45·59	49·98	10	35·15	36·41	39·65	43·09	47·97
11	40·87	41·95	43·18	45·55	49·89	11	37·35	37·11	39·67	42·96	47·89
12	39·96	41·38	43·34	45·54	49·82	12	36·86	37·44	39·72	42·87	47·80
13	41·05	41·72	43·39	45·55	49·73	13	37·29	38·08	39·87	42·80	47·73
14	42·35	42·19	43·47	45·57	49·66	14	35·85	37·81	39·99	42·76	47·64
15	42·15	42·48	43·56	45·55	49·59	15	38·91	38·05	40·06	42·73	47·57
16	42·24	42·57	43·66	45·55	49·51	16	40·62	39·29	40·14	42·71	47·52
17	41·92	42·66	43·77	45·57	49·44	17	40·78	39·81	40·33	42·71	47·43
18	37·54	41·94	43·86	45·59	49·37	18	42·44	40·64	40·60	42·69	47·35
19	37·15	40·62	43·83	45·59	49·30	19	41·58	41·22	40·93	42·76	47·28
20	37·13	40·23	43·65	45·61	49·26	20	40·95	41·40	41·23	42·82	47·25
21	38·52	40·05	43·43	45·61	49·21	21	38·80	40·68	41·50	42·93	47·17
22	37·63	40·12	43·25	45·55	49·17	22	37·36	39·85	41·61	43·02	47·14
23	34·81	39·33	43·11	45·50	49·14	23	35·13	38·97	41·54	43·09	47·10
24	33·87	38·39	42·89	45·39	49·08	24	34·38	38·08	41·41	43·14	47·03
25	33·51	37·69	42·57	45·30	49·03	25	37·49	37·81	41·20	43·18	47·01
26	33·28	37·26	42·26	45·21	48·99	26	38·59	38·70	40·98	43·14	46·98
27	33·12	36·88	41·92	45·05	48·92	27	39·99	39·33	40·93	43·12	46·94
28	33·13	36·63	41·61	44·91	48·88	28	38·32	39·79	41·00	43·07	46·92
29	33·85	36·48	41·32	44·74	48·85						
30	34·70	36·70	41·09	44·56	48·76						
31	34·00	36·82	40·96	44·40	48·70						
Means	37·89	39·86	42·89	45·56	49·64	Means	36·75	38·03	40·52	43·18	47·67

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1907.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1907.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Mar.	°	°	°	°	°	Apr.	°	°	°	°	°
1	37·58	39·69	41·11	43·05	46·89	1	47·98	47·28	45·14	44·92	46·54
2	41·34	40·01	41·18	43·03	46·85	2	50·49	48·07	45·46	45·05	46·60
3	40·30	40·82	41·25	43·05	46·83	3	49·95	48·42	45·82	45·21	46·62
4	40·15	40·62	41·45	43·03	46·78	4	48·24	47·79	46·13	45·36	46·63
5	38·66	40·44	41·58	43·09	46·74	5	48·02	47·28	46·29	45·54	46·65
6	38·59	40·01	41·65	43·12	46·71	6	50·13	47·66	46·38	45·68	46·67
7	38·52	39·85	41·63	43·16	46·67	7	46·22	47·26	46·49	45·82	46·71
8	40·95	40·33	41·59	43·20	46·65	8	48·94	46·98	46·51	45·91	46·71
9	40·93	40·71	41·67	43·23	46·63	9	49·14	47·07	46·58	46·08	46·80
10	43·74	41·31	41·76	43·23	46·62	10	46·92	47·52	46·60	46·17	46·83
11	42·06	42·19	41·94	43·27	46·58	11	46·51	47·21	46·71	46·27	46·89
12	38·62	41·34	42·13	43·29	46·54	12	46·20	46·96	46·74	46·33	46·90
13	42·28	41·20	42·24	43·34	46·54	13	47·77	46·62	46·74	46·42	46·98
14	41·18	41·52	42·26	43·41	46·53	14	47·39	47·28	46·69	46·47	47·01
15	42·53	41·61	42·31	43·45	46·51	15	47·66	47·77	46·78	46·54	47·05
16	44·73	42·58	42·37	43·50	46·49	16	46·94	47·55	46·90	46·60	47·08
17	43·92	43·23	42·57	43·59	46·47	17	48·81	47·39	46·96	46·65	47·14
18	46·54	43·74	42·78	43·59	46·47	18	46·27	46·94	46·99	46·69	47·14
19	44·19	44·10	43·05	43·66	46·45	19	46·85	46·83	46·99	46·76	47·19
20	45·55	44·08	43·32	43·79	46·45	20	47·05	46·63	46·94	46·78	47·21
21	44·10	43·86	43·52	43·90	46·45	21	47·71	47·08	46·92	46·83	47·26
22	44·56	44·10	43·66	44·01	46·45	22	50·36	47·35	46·96	46·89	47·30
23	44·51	43·90	43·77	44·10	46·45	23	51·03	48·56	47·05	46·90	47·34
24	42·31	43·97	43·88	44·19	46·44	24	55·08	49·41	47·25	46·94	47·37
25	45·25	44·06	43·95	44·31	46·47	25	54·01	51·04	47·55	46·99	47·39
26	44·62	44·44	44·02	44·37	46·45	26	49·73	50·63	47·98	47·10	47·41
27	45·61	44·92	44·17	44·46	46·49	27	49·96	48·88	48·27	47·21	47·44
28	43·50	45·32	44·31	44·55	46·51	28	47·23	48·63	48·29	47·35	47·46
29	45·82	45·73	44·49	44·62	46·51	29	48·74	48·52	48·25	47·50	47·50
30	49·37	45·84	44·69	44·71	46·54	30	47·79	48·22	48·22	47·59	47·55
31	46·89	46·60	44·89	44·80	46·53						
Means	42·87	42·65	42·75	43·68	46·57	Means	48·64	47·83	46·89	46·42	47·05

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1907.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1907.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
May	°	°	°	°	°	June	°	°	°	°	°
1	45·37	47·43	48·11	47·62	47·55	1	58·15	55·27	53·02	51·12	49·26
2	48·22	47·21	48·00	47·70	47·62	2	55·31	55·00	53·55	51·53	49·33
3	49·30	47·61	47·86	47·70	47·66	3	53·35	54·57	53·58	51·69	49·50
4	50·36	48·22	47·84	47·71	47·71	4	55·42	53·85	53·51	51·76	49·60
5	49·91	48·63	47·88	47·71	47·73	5	55·51	54·39	53·37	51·82	49·64
6	56·41	49·57	48·02	47·75	47·79	6	55·90	54·93	53·31	51·85	49·73
7	55·24	51·71	48·25	47·79	47·84	7	56·82	54·73	53·33	51·85	49·77
8	54·48	51·06	48·65	47·84	47·86	8	58·71	55·31	53·37	51·89	49·82
9	53·10	51·35	48·97	47·95	47·88	9	59·43	55·94	53·47	51·93	49·87
10	55·22	51·60	49·23	48·09	47·91	10	59·68	56·93	53·69	52·00	49·95
11	59·05	52·50	49·39	48·15	47·89	11	59·32	56·66	53·94	52·07	50·00
12	60·76	54·28	49·78	48·36	48·00	12	61·05	57·20	54·19	52·18	50·05
13	58·23	55·83	50·31	48·54	48·04	13	59·68	57·27	54·39	52·32	50·11
14	55·47	54·88	50·85	48·70	48·06	14	57·24	56·95	54·63	52·43	50·23
15	57·58	53·92	51·22	48·94	48·11	15	58·23	56·98	54·73	52·57	50·25
16	55·62	54·23	51·42	49·19	48·16	16	56·88	56·71	54·81	52·72	50·32
17	54·90	53·73	51·55	49·39	48·22	17	58·23	56·48	54·88	52·84	50·40
18	53·42	53·08	51·60	49·57	48·25	18	57·51	56·91	54·91	52·93	50·47
19	50·94	52·50	51·58	49·69	48·31	19	57·87	56·63	54·95	53·01	50·52
20	50·18	51·84	51·49	49·78	48·36	20	57·34	56·75	54·99	53·10	50·59
21	51·80	51·28	51·39	49·96	48·49	21	58·33	56·64	55·00	53·17	50·65
22	52·18	51·06	51·21	50·02	48·56	22	59·02	56·66	55·06	53·22	50·68
23	53·94	52·07	51·12	50·07	48·63	23	56·10	56·95	55·09	53·29	50·77
24	55·92	53·11	51·12	50·09	48·70	24	56·41	56·66	55·18	53·35	50·83
25	60·22	53·78	51·30	50·14	48·78	25	55·31	55·76	55·20	53·40	50·86
26	57·20	55·40	51·55	50·18	48·83	26	56·46	55·67	55·13	53·47	50·92
27	61·00	55·60	52·00	50·32	48·94	27	58·23	56·21	55·00	53·53	50·99
28	58·44	56·88	52·38	50·47	48·99	28	61·02	56·75	55·00	53·55	51·04
29	55·67	55·40	52·75	50·59	49·05	29	60·12	57·40	55·11	53·56	51·10
30	54·95	54·97	52·93	50·77	49·10	30	57·07	57·85	55·27	53·60	51·15
31	56·86	54·75	52·97	50·94	49·15						
Means	54·58	52·43	50·41	49·09	48·26	Means	57·66	56·20	54·39	52·59	50·28

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1907.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1907.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
July	°	°	°	°	°	Aug.	°	°	°	°	°
1	58·50	56·82	55·47	53·67	51·21	1	60·80	60·46	59·65	57·24	53·26
2	58·46	57·18	55·51	53·73	51·24	2	60·98	60·01	59·49	57·27	53·31
3	56·77	57·15	55·35	53·80	51·30	3	61·72	60·60	59·31	57·29	53·40
4	57·76	56·55	55·58	53·87	51·35	4	64·02	61·52	59·25	57·27	53·46
5	56·86	56·50	55·56	53·94	51·40	5	63·90	61·27	59·34	57·29	53·53
6	57·40	56·53	55·49	54·00	51·44	6	64·22	62·60	59·47	57·31	53·60
7	56·66	56·79	55·45	54·00	51·49	7	60·39	61·59	59·63	57·33	53·64
8	57·22	56·82	55·47	54·01	51·55	8	60·73	60·98	59·67	57·40	53·69
9	58·05	56·55	55·51	54·07	51·62	9	62·89	61·16	59·61	57·43	53·74
10	56·79	56·80	55·51	54·07	51·67	10	62·60	61·52	59·58	57·49	53·80
11	57·36	55·78	55·53	54·10	51·71	11	61·70	61·43	59·58	57·47	53·82
12	60·01	56·46	55·44	54·12	51·75	12	60·69	61·25	59·65	57·54	53·89
13	61·79	57·63	55·47	54·16	51·82	13	61·66	60·91	59·63	57·58	53·94
14	61·39	58·69	55·63	54·18	51·87	14	62·82	61·27	59·59	57·60	54·00
15	65·44	59·29	55·92	54·23	51·91	15	63·05	61·59	59·61	57·63	54·05
16	64·60	60·57	56·25	54·32	51·96	16	61·66	61·21	59·67	57·65	54·12
17	63·91	61·21	56·62	54·41	51·98	17	61·47	60·89	59·67	57·69	54·14
18	66·16	61·72	57·07	54·54	52·02	18	61·90	61·24	59·63	57·70	54·19
19	65·66	62·73	57·47	54·72	52·07	19	60·94	60·92	59·65	57·73	54·23
20	66·36	63·41	57·92	54·91	52·12	20	58·54	60·23	59·64	57·75	54·27
21	65·50	63·70	58·35	55·11	52·14	21	57·81	59·37	59·54	57·79	54·31
22	63·70	63·10	58·84	55·44	52·20	22	59·00	59·11	59·33	57·79	54·36
23	61·77	62·51	59·68	56·39	52·56	23	60·03	59·43	59·12	57·76	54·41
24	64·36	62·15	59·83	56·73	52·74	24	59·17	59·13	59·00	57·74	54·46
25	62·67	62·35	59·83	56·89	52·83	25	58·47	59·19	58·90	57·68	54·48
26	61·77	61·61	59·83	56·98	52·88	26	60·68	59·50	58·80	57·62	54·52
27	64·47	61·72	59·74	57·06	52·95	27	59·95	59·59	58·78	57·60	54·57
28	62·67	62·17	59·68	57·09	53·01	28	60·80	59·48	58·75	57·55	54·60
29	64·13	62·13	59·70	57·13	53·08	29	62·98	60·04	58·77	57·52	54·63
30	62·33	62·22	59·72	57·18	53·13	30	61·43	60·77	58·82	57·49	54·65
31	60·28	61·29	59·74	57·20	53·19	31	62·94	60·78	58·96	57·51	54·70
Means	61·32	59·68	57·20	55·03	52·07	Means	61·29	60·61	59·36	57·54	54·06

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1907.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1907.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Sept.	°	°	°	°	°	Oct.	°	°	°	°	°
1	59·31	60·58	59·04	57·49	54·70	1	58·89	58·48	58·12	57·25	55·24
2	58·28	59·68	59·09	57·52	54·70	2	56·79	58·24	58·10	57·25	55·22
3	56·79	58·87	59·02	57·56	54·73	3	55·22	57·29	58·03	57·24	55·24
4	57·52	58·24	58·86	57·56	54·77	4	54·52	56·55	57·88	57·24	55·24
5	58·60	58·41	58·62	57·56	54·79	5	53·44	55·92	57·63	57·18	55·22
6	60·42	58·82	58·46	57·52	54·81	6	56·19	56·03	57·38	57·11	55·22
7	61·90	59·74	58·42	57·47	54·84	7	56·52	56·88	57·16	57·04	55·22
8	63·86	60·15	58·50	57·43	54·88	8	51·04	55·80	57·09	56·95	55·22
9	63·21	60·84	58·62	57·40	54·88	9	51·58	54·34	56·93	56·86	55·22
10	61·90	60·85	58·80	57·42	54·90	10	52·48	54·23	56·61	56·77	55·24
11	60·24	60·51	58·96	57·42	54·90	11	53·24	54·27	56·30	56·66	55·24
12	61·03	60·13	59·04	57·45	54·90	12	53·11	54·23	56·05	56·53	55·24
13	60·93	60·22	59·04	57·51	54·93	13	51·84	54·07	55·83	56·39	55·24
14	61·20	60·49	59·04	57·54	54·97	14	53·80	54·21	55·69	56·25	55·22
15	57·45	59·79	59·05	57·58	54·99	15	51·91	53·98	55·40	56·07	55·26
16	59·49	58·84	58·98	57·58	54·99	16	48·34	52·61	55·27	55·90	55·26
17	59·88	59·27	58·86	57·60	55·02	17	50·52	51·91	54·70	55·67	55·27
18	58·93	59·14	58·77	57·60	55·02	18	49·93	51·82	54·25	55·40	55·26
19	59·47	58·96	58·75	57·60	55·06	19	51·85	51·87	53·98	55·20	55·20
20	59·86	58·95	58·69	57·58	55·06	20	51·91	52·20	53·76	55·04	55·13
21	58·12	59·13	58·62	57·56	55·08	21	51·85	52·18	53·65	54·82	55·11
22	58·21	58·87	58·60	57·56	55·11	22	51·73	52·25	53·60	54·68	55·02
23	56·16	58·15	58·53	57·54	55·13	23	51·13	52·05	53·56	54·59	54·99
24	55·99	57·49	58·41	57·52	55·15	24	48·43	51·31	53·53	54·52	54·91
25	57·31	57·18	58·23	57·47	55·15	25	47·35	50·77	53·40	54·45	54·86
26	59·32	57·99	58·06	57·43	55·18	26	46·99	50·31	53·19	54·36	54·79
27	59·43	58·46	57·97	57·38	55·15	27	47·89	50·14	52·97	54·28	54·75
28	59·59	58·80	58·05	57·33	55·17	28	47·66	49·82	52·72	54·14	54·68
29	57·99	58·86	58·05	57·29	55·20	29	48·97	50·07	52·50	54·01	54·63
30	58·82	58·66	58·12	57·25	55·20	30	49·98	50·32	52·29	53·85	54·55
						31	49·84	50·34	52·02	53·49	54·48
Means	59·37	59·20	58·64	57·49	54·98	Means	51·77	53·37	55·15	55·72	55·08

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1907.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1907.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Nov.	°	°	°	°	°	Dec.	°	°	°	°	°
1	47·23	49·95	51·94	53·31	54·43	1	39·25	42·76	46·83	49·19	52·21
2	49·55	49·93	51·85	53·20	54·36	2	40·51	42·60	46·54	49·10	52·11
3	48·60	50·16	51·76	53·13	54·30	3	43·38	43·63	46·31	48·99	52·05
4	48·06	49·91	51·71	53·04	54·23	4	40·95	43·36	46·18	48·79	51·87
5	49·78	50·05	51·64	52·97	54·16	5	42·39	43·54	46·00	48·54	51·67
6	49·12	50·11	51·60	52·88	54·09	6	39·34	42·94	45·81	48·25	51·42
7	48·20	49·87	51·58	52·83	54·03	7	39·22	42·13	45·70	48·13	51·33
8	48·34	49·75	51·53	52·79	53·98	8	44·29	42·44	45·50	47·98	51·13
9	49·51	49·77	51·44	52·70	53·91	9	43·79	43·95	45·25	47·75	50·90
10	47·91	49·78	51·39	52·65	53·87	10	43·21	44·15	45·37	47·61	50·81
11	45·10	48·90	51·33	52·59	53·83	11	42·24	43·92	45·48	47·53	50·76
12	45·93	48·16	51·17	52·52	53·76	12	42·13	43·38	45·55	47·50	50·68
13	46·38	48·07	50·95	52·43	53·69	13	40·05	42·89	45·36	47·34	50·31
14	46·11	47·73	50·74	52·34	53·64	14	40·01	42·53	45·16	47·17	49·98
15	46·99	48·22	50·56	52·23	53·60	15	37·98	41·90	44·98	47·10	49·96
16	42·37	47·35	50·43	52·12	53·55	16	37·99	40·98	44·80	47·05	49·98
17	45·12	46·74	50·25	52·02	53·49	17	40·50	41·47	44·60	47·01	50·02
18	46·54	47·43	49·98	51·89	53·46	18	40·14	41·38	44·44	46·92	50·04
19	45·95	47·37	49·86	51·75	53·38	19	44·05	42·62	44·37	46·87	50·05
20	44·01	47·08	49·75	51·62	53·33	20	46·44	44·20	44·46	46·80	50·07
21	44·08	46·45	49·60	51·49	53·28	21	46·36	45·07	44·74	46·76	50·07
22	42·75	46·02	49·39	51·37	53·22	22	44·22	45·05	45·07	46·74	50·04
23	44·08	45·72	49·19	51·26	53·15	23	45·45	45·18	45·34	46·80	50·02
24	40·59	45·16	48·94	51·10	53·08	24	42·26	44·65	45·54	46·85	50·02
25	41·63	44·42	48·63	50·95	53·02	25	42·17	43·99	45·63	46·94	50·00
26	41·02	43·84	48·20	50·68	52·92	26	39·33	43·32	45·61	46·98	49·96
27	44·28	44·35	47·37	50·11	52·70	27	38·12	42·12	45·45	47·01	49·95
28	44·76	44·78	47·01	49·64	52·50	28	36·59	41·18	45·21	47·01	49·93
29	41·56	44·78	46·98	49·39	52·39	29	35·74	40·32	44·91	46·94	49·89
30	38·28	43·68	46·96	49·26	52·30	30	35·20	39·61	44·47	46·89	49·82
						31	35·31	39·11	44·10	46·76	49·82
Means	45·46	47·52	50·12	51·88	53·52	Means	40·92	42·79	45·31	47·46	50·54

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1908.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1908.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Jan.	°	°	°	°	°	Feb.	°	°	°	°	°
1	35·33	38·84	43·72	46·60	49·75	1	37·78	39·40	41·52	43·56	47·55
2	34·20	38·41	43·38	46·44	49·69	2	35·19	38·89	41·49	43·57	47·48
3	33·48	37·85	43·07	46·26	49·68	3	37·15	38·17	41·36	43·52	47·43
4	32·76	37·35	42·76	46·09	49·64	4	35·62	38·39	41·25	43·56	47·41
5	32·47	36·86	42·46	45·93	49·59	5	35·11	38·08	41·14	43·54	47·35
6	32·36	36·46	42·06	45·72	49·51	6	38·32	38·19	41·04	43·48	47·32
7	32·63	36·25	41·74	45·52	49·48	7	38·39	38·75	40·95	43·43	47·26
8	36·18	36·68	41·27	45·23	49·17	8	38·68	39·34	40·96	43·38	47·23
9	35·85	37·53	40·96	44·83	48·96	9	40·01	39·78	41·07	43·34	47·19
10	34·16	37·29	40·95	44·56	48·87	10	40·68	40·30	41·18	43·29	47·16
11	33·48	36·79	40·91	44·38	48·81	11	42·28	41·00	41·34	43·30	47·10
12	33·08	36·46	40·82	44·28	48·78	12	43·18	41·67	41·58	43·32	47·07
13	32·58	36·10	40·64	44·13	48·72	13	38·19	41·45	41·85	43·36	47·03
14	32·58	35·82	40·46	44·01	48·65	14	41·05	40·82	42·03	43·41	46·98
15	32·67	35·65	40·26	43·88	48·60	15	41·99	41·29	42·08	43·50	46·96
16	37·06	35·73	40·08	43·75	48·54	16	39·11	41·31	42·15	43·56	46·92
17	41·99	38·35	39·97	43·59	48·47	17	41·63	41·07	42·24	43·63	46·90
18	40·14	39·90	40·23	43·48	48·40	18	42·84	41·99	42·30	43·66	46·89
19	38·37	39·72	40·62	43·41	48·34	19	41·34	42·24	42·44	43·72	46·87
20	38·12	39·56	40·93	43·39	48·27	20	43·38	42·39	42·58	43·75	46·83
21	35·22	38·89	41·11	43·43	48·18	21	43·84	42·89	42·75	43·81	46·83
22	35·53	37·99	41·11	43·45	48·11	22	42·48	42·93	42·93	43·92	46·80
23	37·04	38·16	41·02	43·48	48·06	23	41·16	42·66	43·07	43·97	46·80
24	36·63	38·50	40·96	43·50	48·00	24	40·14	42·12	43·14	44·04	46·78
25	36·00	38·16	40·95	43·47	47·93	25	40·78	41·74	43·16	44·13	46·78
26	38·89	38·44	40·93	43·47	47·89	26	40·19	41·61	43·07	44·17	46·74
27	42·87	39·99	40·89	43·45	47·84	27	40·87	41·63	43·03	44·24	46·76
28	40·80	40·87	41·11	43·43	47·79	28	39·60	41·49	43·00	44·26	46·78
29	38·26	40·46	41·40	43·41	47·70	29	38·28	40·93	42·94	44·26	46·76
30	36·45	39·63	41·56	43·45	47·64						
31	37·90	39·15	41·56	43·52	47·59						
Means	35·97	37·99	41·29	44·31	48·60	Means	39·97	40·78	42·06	43·68	47·03

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1908.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1908.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Mar.	°	°	°	°	°	Apr.	°	°	°	°	°
1	37·29	40·21	42·84	44·24	46·76	1	42·44	43·57	43·61	44·08	46·27
2	37·40	39·79	42·64	44·20	46·74	2	46·09	43·84	43·68	44·15	46·26
3	37·31	39·78	42·44	44·20	46·72	3	46·08	44·71	43·77	44·22	46·22
4	37·74	39·43	42·30	44·13	46·72	4	44·42	44·62	43·99	44·33	46·24
5	38·35	39·74	42·12	44·08	46·74	5	43·52	44·51	44·15	44·40	46·26
6	40·30	39·88	42·03	43·99	46·72	6	44·46	44·13	44·24	44·49	46·26
7	40·10	40·50	41·94	43·92	46·71	7	44·82	44·29	44·29	44·58	46·26
8	41·49	40·80	41·99	43·84	46·71	8	45·54	44·64	44·35	44·65	46·27
9	43·20	41·88	42·06	43·97	46·69	9	46·56	45·23	44·47	44·71	46·27
10	42·04	42·13	42·24	43·75	46·65	10	47·01	46·26	44·62	44·78	46·29
11	41·90	42·03	42·46	43·75	46·62	11	46·11	45·97	44·85	44·87	46·31
12	39·79	41·65	42·60	43·81	46·60	12	45·50	45·75	45·03	44·96	46·33
13	40·23	41·34	42·66	43·83	46·58	13	45·81	45·50	45·12	45·05	46·35
14	39·79	41·40	42·66	43·88	46·54	14	44·38	45·34	45·21	45·14	46·36
15	39·49	41·20	42·64	43·88	46·51	15	43·29	44·78	45·23	45·23	46·38
16	40·01	40·96	42·60	43·92	46·47	16	47·80	45·27	45·18	45·30	46·40
17	41·27	41·25	42·55	43·92	46·47	17	45·66	46·00	45·21	45·34	46·40
18	39·09	41·25	42·55	43·92	46·47	18	46·42	46·13	45·36	45·41	46·45
19	38·79	40·64	42·57	43·90	46·45	19	44·42	46·00	45·50	45·46	46·47
20	38·17	40·23	42·49	43·92	46·44	20	42·96	45·21	45·59	45·54	46·49
21	39·56	40·44	42·39	43·92	46·42	21	44·13	44·82	45·57	45·61	46·51
22	38·88	40·64	42·26	43·84	46·40	22	45·14	45·00	45·52	45·68	46·54
23	42·37	40·69	42·22	43·83	46·38	23	43·61	45·16	45·48	45·72	46·58
24	42·15	41·76	42·26	43·81	46·36	24	40·59	44·04	45·46	45·73	46·58
25	43·29	42·46	42·40	43·77	46·35	25	39·85	43·43	45·36	45·77	46·60
26	43·39	42·44	42·60	43·79	46·36	26	38·37	42·28	45·12	45·75	46·63
27	42·96	42·66	42·73	43·77	46·33	27	41·02	41·34	44·73	45·68	46·65
28	44·80	43·32	42·89	43·83	46·31	28	43·48	42·48	44·33	45·59	46·67
29	43·95	43·74	43·09	43·86	46·31	29	47·19	43·38	44·10	45·41	46·63
30	44·44	43·66	43·29	43·95	46·29	30	48·76	45·86	44·15	45·27	46·65
31	44·22	43·88	43·45	44·02	46·27						
Means	40·77	41·35	42·51	43·92	46·52	Means	44·51	44·65	44·78	45·10	46·42

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1908.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1908.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
May	°	°	°	°	°	June	°	°	°	°	°
1	54·84	46·80	44·53	45·19	46·69	1	65·34	59·29	53·80	50·85	48·36
2	57·20	49·44	45·01	45·21	46·69	2	64·44	60·12	54·23	51·08	48·45
3	56·61	52·02	45·64	45·25	46·69	3	66·99	59·99	54·72	51·30	48·54
4	55·40	52·09	46·60	45·41	46·67	4	68·70	61·27	55·11	51·55	48·63
5	53·51	51·93	47·32	45·68	46·67	5	64·15	61·54	55·58	51·82	48·70
6	53·31	51·42	47·84	45·97	46·67	6	59·47	60·66	55·98	52·09	48·79
7	53·94	51·19	48·15	46·26	46·67	7	57·42	59·13	56·17	52·32	48·87
8	54·64	52·07	48·42	46·54	46·71	8	60·13	58·55	56·16	52·59	48·97
9	54·84	52·12	48·70	46·80	46·72	9	59·76	58·64	56·12	52·83	49·10
10	53·94	52·43	48·94	47·01	46·78	10	62·60	58·84	56·12	53·01	49·23
11	55·60	52·32	49·21	47·25	46·83	11	60·55	59·45	56·12	53·13	49·32
12	56·44	52·70	49·44	47·44	46·87	12	59·86	59·34	56·25	53·26	49·42
13	56·19	53·29	49·68	47·64	46·92	13	58·57	58·86	56·34	53·37	49·53
14	54·12	53·53	49·93	47·84	46·96	14	58·75	58·12	56·28	53·42	49·60
15	51·75	52·38	50·18	48·06	47·03	15	60·51	57·97	56·26	53·58	49·73
16	52·97	51·64	50·23	48·24	47·10	16	58·78	58·55	56·23	53·67	49·86
17	55·78	52·66	50·20	48·38	47·16	17	56·57	57·96	56·25	53·73	49·95
18	58·10	54·28	50·34	48·54	47·25	18	60·15	57·29	56·21	53·82	50·14
19	60·04	55·22	50·67	48·67	47·32	19	61·86	58·03	56·16	53·91	50·25
20	59·76	56·26	51·08	48·81	47·39	20	61·41	59·13	56·19	53·96	50·34
21	57·81	55·94	51·55	49·01	47·46	21	58·14	58·77	56·32	54·00	50·43
22	55·02	55·00	51·89	49·23	47·53	22	61·00	58·10	56·41	54·05	50·50
23	53·83	53·76	52·02	49·44	47·61	23	63·23	59·16	56·43	54·10	50·59
24	55·80	53·98	52·02	49·64	47·66	24	63·45	60·17	56·57	54·18	50·67
25	55·54	54·32	52·02	49·84	47·79	25	64·96	60·40	56·82	54·23	50·74
26	56·46	54·23	52·07	49·96	47·86	26	65·95	60·98	57·07	54·37	50·81
27	60·37	54·63	52·12	50·07	47·95	27	63·54	61·95	57·38	54·48	50·90
28	63·54	56·55	52·29	50·20	48·02	28	62·51	61·41	57·65	54·59	50·95
29	62·35	57·38	52·63	50·29	48·11	29	67·24	62·22	57·90	54·79	51·04
30	59·74	57·90	53·08	50·47	48·20	30	69·06	62·87	58·17	54·93	51·12
31	64·27	57·83	53·47	50·63	48·27						
Means	56·57	53·46	49·91	48·03	47·23	Means	62·17	59·63	56·23	53·30	49·78

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1908.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1908.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
July	°	°	°	°	°	Aug.	°	°	°	°	°
1	69·39	63·64	58·50	55·11	51·19	1	66·29	65·07	61·29	58·05	53·76
2	69·31	64·17	58·87	55·31	51·28	2	66·52	64·80	61·48	58·19	53·82
3	70·95	64·38	59·25	55·49	51·35	3	68·95	65·07	61·59	58·33	53·91
4	66·83	65·21	59·61	55·71	51·44	4	68·61	65·82	61·74	58·48	54·00
5	65·46	64·40	59·95	55·96	51·53	5	65·48	65·89	61·93	58·66	54·10
6	66·61	63·91	60·19	56·23	51·62	6	63·43	64·38	62·10	58·80	54·16
7	67·08	64·13	60·28	56·43	51·73	7	65·44	63·64	62·11	58·93	54·25
8	63·55	63·68	60·37	56·61	51·82	8	64·87	64·31	62·01	59·05	54·34
9	62·17	62·56	60·44	56·82	51·94	9	65·43	64·02	61·95	59·11	54·43
10	62·56	62·06	60·35	56·97	52·05	10	65·89	64·74	61·93	59·18	54·52
11	62·87	61·68	60·19	57·09	52·16	11	62·76	63·75	62·01	59·25	54·61
12	64·83	61·56	60·06	57·16	52·29	12	63·45	63·05	61·95	59·29	54·70
13	61·25	62·19	59·95	57·24	52·38	13	62·56	63·05	61·83	59·31	54·75
14	62·67	61·32	59·90	57·25	52·48	14	62·31	62·58	61·72	59·36	54·84
15	62·33	61·16	59·81	57·29	52·59	15	63·91	62·73	61·59	59·38	54·93
16	61·52	61·11	59·72	57·33	52·70	16	62·40	63·03	61·45	59·32	54·95
17	61·21	60·80	59·61	57·31	52·79	17	65·86	63·19	61·45	59·32	55·02
18	59·92	60·76	59·49	57·29	52·88	18	62·56	63·70	61·47	59·32	55·09
19	59·22	60·21	59·45	57·34	53·01	19	62·92	62·83	61·50	59·34	55·17
20	61·56	60·12	59·23	57·29	53·04	20	60·48	62·49	61·45	59·36	55·24
21	63·75	60·15	59·13	57·27	53·11	21	64·65	62·01	61·36	59·40	55·31
22	66·90	61·59	59·09	57·24	53·20	22	63·99	62·47	61·21	59·34	55·29
23	67·62	62·96	59·22	57·20	53·26	23	58·77	62·15	61·14	59·31	55·35
24	69·40	63·86	59·47	57·20	53·33	24	62·98	60·85	61·07	59·31	55·40
25	67·39	64·33	59·81	57·22	53·38	25	62·87	61·83	60·85	59·31	55·44
26	66·42	63·95	60·12	57·31	53·42	26	59·92	61·74	60·76	59·23	55·49
27	66·99	64·13	60·35	57·42	53·47	27	62·28	61·32	60·69	59·18	55·53
28	68·31	64·44	60·60	57·58	53·56	28	60·12	61·17	60·61	59·16	55·58
29	65·41	64·40	60·80	57·72	53·64	29	59·06	60·33	60·51	59·13	55·61
30	66·54	64·80	60·94	57·81	53·64	30	59·01	59·95	60·34	59·06	55·63
31	67·21	65·37	61·07	57·90	53·71	31	58·19	59·72	60·12	59·01	55·68
Means	65·07	62·87	59·87	56·94	52·58	Means	63·29	62·96	61·39	59·08	54·87

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1908.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1908.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Sept.	°	°	°	°	°	Oct.	°	°	°	°	°
1	57·90	58·65	59·93	58·94	55·70	1	62·46	59·76	57·20	56·41	55·24
2	57·51	57·81	59·61	58·86	55·72	2	62·19	59·99	57·47	56·43	55·22
3	55·09	57·46	59·30	58·76	55·75	3	61·56	59·83	57·70	56·48	55·20
4	54·25	56·77	58·97	58·64	55·80	4	60·73	59·88	57·88	56·67	55·20
5	53·69	55·88	58·61	58·49	55·79	5	60·15	59·99	58·01	56·64	55·18
6	55·19	55·89	58·25	58·34	55·82	6	58·77	58·93	58·12	56·71	55·18
7	58·17	56·52	57·91	58·14	55·81	7	55·38	58·06	58·08	56·80	55·20
8	58·54	57·14	57·75	57·97	55·81	8	57·87	57·58	57·92	56·86	55·20
9	55·74	57·20	57·70	57·79	55·81	9	58·69	58·08	57·72	56·86	55·18
10	54·76	56·23	57·64	57·66	55·79	10	58·19	58·08	57·67	56·88	55·22
11	55·49	55·83	57·45	57·52	55·78	11	55·62	57·63	57·63	56·88	55·22
12	54·91	55·69	57·27	57·42	55·76	12	56·80	57·06	57·51	56·82	55·20
13	52·65	55·38	57·09	57·33	55·74	13	56·10	56·89	57·36	56·79	55·20
14	55·53	55·47	56·89	57·18	55·74	14	56·73	56·93	57·25	56·79	55·24
15	54·55	55·78	56·71	57·04	55·69	15	57·45	56·95	57·11	56·70	55·20
16	54·46	55·20	56·62	56·93	55·67	16	57·00	56·86	57·04	56·66	55·22
17	56·73	55·35	56·48	56·79	55·63	17	57·11	57·02	56·95	56·61	55·22
18	56·64	56·16	56·39	56·70	55·60	18	55·74	56·79	56·93	56·57	55·22
19	58·87	56·62	56·39	56·59	55·56	19	56·53	56·62	56·86	56·52	55·20
20	59·36	57·58	56·46	56·52	55·56	20	55·35	56·62	56·75	56·46	55·20
21	60·17	58·33	56·62	56·43	55·49	21	52·07	55·72	56·71	56·43	55·20
22	55·98	57·92	56·84	56·41	55·45	22	48·29	53·47	56·55	56·39	55·17
23	57·70	57·25	56·97	56·39	55·40	23	49·68	52·39	56·12	56·35	55·20
24	57·94	57·52	56·95	56·43	55·40	24	47·86	51·76	55·63	56·23	55·18
25	58·32	57·40	56·98	56·44	55·36	25	44·33	50·58	55·22	56·12	55·20
26	57·31	57·42	56·97	56·43	55·33	26	47·75	49·96	54·63	55·90	55·15
27	55·29	56·91	56·98	56·43	55·31	27	47·64	50·23	54·14	55·71	55·13
28	58·17	56·89	56·91	56·43	55·29	28	46·45	49·62	53·73	55·40	55·09
29	61·30	58·10	56·82	56·39	55·27	29	52·27	50·61	53·38	55·18	55·06
30	63·12	59·04	56·98	56·39	55·26	30	50·72	51·26	53·22	54·99	55·02
						31	53·62	51·91	53·19	54·77	54·99
Means	56·84	56·85	57·41	57·26	55·60	Means	54·87	55·71	56·51	56·36	55·18

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1908.	Depth.					1908.	Depth.				
	I.	II.	III.	IV.	V.		I.	II.	III.	IV.	V.
	ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½		ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½
Nov.	°	°	°	°	°	Dec.	°	°	°	°	°
1	53·69	52·72	53·20	54·59	54·93	1	46·47	47·86	49·06	50·81	53·04
2	52·45	52·79	53·35	54·46	54·90	2	44·15	47·08	49·14	50·76	52·97
3	50·81	52·29	53·44	54·37	54·84	3	44·06	46·45	49·08	50·72	52·92
4	49·59	51·57	53·42	54·28	54·75	4	42·40	45·81	48·94	50·65	52·84
5	48·63	50·95	53·31	54·23	54·72	5	44·13	45·63	48·72	50·59	52·79
6	48·02	50·54	53·11	54·19	54·68	6	45·41	45·84	48·52	50·50	52·74
7	45·57	49·75	52·90	54·10	54·63	7	42·64	45·46	48·40	50·41	52·66
8	41·02	48·29	52·72	54·03	54·61	8	42·31	44·53	48·25	50·32	52·61
9	40·82	46·58	52·21	53·87	54·50	9	41·97	44·74	48·02	50·22	52·56
10	37·56	45·30	51·66	53·73	54·45	10	42·49	43·88	47·82	50·11	52·50
11	43·30	44·53	51·04	53·51	54·41	11	41·09	44·01	47·59	49·98	52·47
12	47·91	46·67	50·45	53·24	54·36	12	40·24	43·27	47·37	49·84	52·38
13	49·35	47·97	50·27	52·99	54·30	13	40·73	42·78	47·12	49·71	52·32
14	48·94	48·87	50·31	52·74	54·25	14	42·48	43·32	46·81	49·55	52·25
15	47·89	48·92	50·40	52·57	54·18	15	42·42	43·66	46·63	49·37	52·18
16	47·53	48·81	50·50	52·41	54·10	16	42·91	43·93	46·54	49·19	52·11
17	46·92	48·52	50·52	52·30	54·00	17	45·19	44·49	46·51	49·05	52·03
18	46·04	47·95	50·52	52·21	53·92	18	41·32	44·42	46·58	48·96	51·98
19	46·04	47·95	50·41	52·14	53·85	19	40·98	43·34	46·60	48·87	51·89
20	43·48	46·92	50·29	52·05	53·80	20	43·47	43·61	46·42	48·74	51·76
21	43·84	46·51	50·05	51·96	53·71	21	46·15	44·80	46·38	48·69	51·73
22	47·25	46·69	49·84	51·87	53·64	22	46·56	45·75	46·44	48·61	51·67
23	45·59	47·30	49·66	51·75	53·58	23	41·74	45·03	46·62	48·54	51·60
24	43·29	46·11	49·59	51·60	53·47	24	40·21	43·99	46·71	48·52	51·53
25	45·09	46·71	49·39	51·48	53·46	25	39·40	43·05	46·58	48·49	51·48
26	44·85	46·13	49·26	51·37	53·37	26	38·26	42·39	46·38	48·49	51·44
27	45·41	46·35	49·12	51·24	53·29	27	37·35	41·63	46·08	48·43	51·39
28	46·17	46·53	49·03	51·12	53·26	28	35·01	40·55	45·72	48·29	51·28
29	47·34	47·14	48·96	50·99	53·17	29	34·30	39·51	45·30	48·15	51·21
30	47·93	47·64	48·99	50·90	53·10	30	34·05	38·88	44·85	47·98	51·15
						31	33·87	38·37	44·38	47·77	51·08
Means	46·41	48·17	50·93	52·74	54·07	Means	41·41	43·81	47·08	49·36	52·08

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1909.	Depth.					1909.	Depth.				
	I.	II.	III.	IV.	V.		I.	II.	III.	IV.	V.
	ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½		ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½
Jan.	°	°	°	°	°	Feb.	°	°	°	°	°
1	35·22	37·80	43·83	47·48	51·03	1	33·35	36·10	40·77	44·33	48·72
2	39·70	38·79	43·27	47·16	50·92	2	33·42	36·10	40·59	44·17	48·65
3	42·12	40·48	43·03	46·89	50·81	3	40·26	37·31	40·44	44·02	48·58
4	42·57	41·79	43·12	46·62	50·70	4	43·43	39·58	40·39	43·84	48·51
5	40·60	42·10	43·41	46·45	50·61	5	43·95	41·38	40·78	43·72	48·40
6	39·58	41·27	43·63	46·36	50·52	6	39·60	41·00	41·29	43·70	48·33
7	39·27	41·05	43·72	46·31	50·41	7	35·94	39·97	41·59	43·68	48·25
8	39·11	41·05	43·74	46·31	50·34	8	35·69	38·82	41·72	43·75	48·18
9	36·18	40·21	43·72	46·26	50·25	9	34·92	38·16	41·59	43·79	48·09
10	38·53	39·88	43·61	46·22	50·18	10	35·96	37·98	41·41	43·79	48·02
11	42·62	41·31	43·43	46·15	50·09	11	36·48	38·01	41·25	43·79	47·97
12	40·41	41·72	43·45	46·06	50·02	12	35·85	38·07	41·13	43·74	47·91
13	38·59	40·91	43·57	46·02	49·95	13	34·34	37·58	41·02	43·70	47·86
14	39·09	40·78	43·56	45·95	49·87	14	33·82	37·13	40·87	43·57	47·79
15	40·37	41·40	43·48	45·93	49·82	15	38·84	37·47	40·75	43·52	47·75
16	38·14	40·91	43·50	45·86	49·73	16	36·61	38·14	40·62	43·45	47·70
17	36·19	40·12	43·48	45·82	49·66	17	34·61	37·69	40·66	43·36	47·62
18	42·21	40·91	43·27	45·75	49·59	18	36·77	37·40	40·60	43·29	47·57
19	42·04	41·88	43·21	45·68	49·51	19	34·48	37·54	40·53	43·23	47·52
20	36·73	40·96	43·36	45·63	49·46	20	33·87	37·02	40·46	43·18	47·46
21	36·81	39·69	43·34	45·55	49·39	21	33·80	36·72	40·35	43·12	47·41
22	37·22	39·65	43·16	45·55	49·35	22	34·11	36·75	40·23	43·05	47·37
23	35·85	39·25	42·98	45·50	49·30	23	33·49	36·55	40·10	42·98	47·32
24	34·50	38·55	42·78	45·41	49·19	24	33·55	36·16	39·99	42·91	47·26
25	34·00	37·92	42·55	45·34	49·17	25	33·44	36·12	39·87	42·84	47·23
26	33·58	37·45	42·26	45·21	49·06	26	33·37	35·92	39·72	42·75	47·17
27	33·44	37·08	41·95	45·10	49·03	27	33·31	35·74	39·56	42·62	47·10
28	33·31	36·82	41·70	44·96	48·99	28	33·33	35·71	39·40	42·53	47·03
29	33·21	36·55	41·41	44·80	48·92						
30	33·22	36·37	41·20	44·64	48·87						
31	33·17	36·23	40·95	44·49	48·79						
Means	37·66	39·71	43·02	45·85	49·79	Means	35·74	37·58	40·63	43·44	47·81

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1909.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1909.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Mar.	°	°	°	°	°	Apr.	°	°	°	°	°
1	33·31	35·73	39·33	42·44	46·98	1	44·74	44·74	43·21	43·07	45·59
2	33·33	35·56	39·22	42·35	46·90	2	43·57	43·47	43·47	43·23	45·59
3	33·39	35·65	39·15	42·26	46·85	3	43·12	43·48	43·48	43·38	45·61
4	33·39	35·58	39·09	42·19	46·81	4	42·73	43·48	43·48	43·50	45·61
5	33·22	35·53	38·98	42·08	46·72	5	44·22	43·23	43·50	43·63	45·63
6	33·49	35·47	38·93	42·01	46·69	6	45·39	43·27	43·54	43·72	45·66
7	34·83	35·71	38·84	41·90	46·60	7	47·35	43·84	43·59	43·81	45·68
8	37·54	36·57	38·75	41·79	46·53	8	48·65	44·60	43·72	43·88	45·72
9	36·70	37·08	38·88	41·74	46·47	9	46·29	45·72	43·90	43·95	45·73
10	36·81	37·18	39·00	41·65	46·40	10	50·36	46·49	44·26	44·06	45·77
11	36·01	37·36	39·13	41·63	46·36	11	49·53	47·28	44·62	44·20	45·81
12	36·07	37·02	39·24	41·61	46·29	12	48·76	47·95	45·05	44·35	45·82
13	37·47	37·17	39·25	41·63	46·24	13	49·28	47·37	45·41	44·53	45·86
14	36·63	37·63	39·27	41·61	46·17	14	51·40	47·68	45·66	44·73	45·90
15	34·97	37·02	39·34	41·61	46·09	15	50·85	47·97	45·91	44·94	45·95
16	35·73	36·75	39·34	41·59	46·04	16	50·16	48·40	46·17	45·14	45·97
17	35·55	36·77	39·31	41·59	45·99	17	50·90	48·25	46·38	45·30	46·00
18	37·65	37·00	39·27	41·59	45·95	18	50·99	48·83	46·58	45·46	46·06
19	42·03	38·16	39·27	41·58	45·90	19	52·16	49·12	46·81	45·64	46·11
20	44·24	40·05	39·42	41·54	45·82	20	54·46	50·13	47·05	45·81	46·17
21	42·40	41·09	39·78	41·54	45·79	21	52·39	50·05	47·39	45·99	46·24
22	43·90	41·36	40·26	41·63	45·77	22	53·19	49·89	47·68	46·18	46·29
23	44·46	41·97	40·60	41·70	45·72	23	53·06	49·93	47·88	46·38	46·36
24	44·51	42·49	41·02	41·86	45·68	24	54·07	50·43	48·04	46·58	46·44
25	46·53	43·14	41·38	42·01	45·64	25	51·15	50·50	48·22	46·74	46·49
26	43·20	43·09	41·77	42·19	45·64	26	53·38	50·34	48·42	46·90	46·56
27	42·60	41·90	42·08	42·35	45·64	27	54·27	50·88	48·54	47·05	46·63
28	42·64	42·35	42·03	42·37	45·66	28	54·09	50·99	48·70	47·21	46·71
29	47·77	43·36	42·26	42·67	45·61	29	54·57	51·03	48·90	47·35	46·78
30	48·02	44·76	42·46	42·76	45·57	30	50·58	50·11	49·06	47·52	46·83
31	46·31	45·03	42·85	42·89	45·59						
Means	39·18	38·89	39·98	41·95	46·13	Means	49·86	47·65	45·95	45·14	46·05

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1909.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1909.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
May	°	°	°	°	°	June	°	°	°	°	°
1	48·31	49·39	49·08	47·68	46·90	1	61·05	59·16	54·48	51·91	49·12
2	48·81	48·36	49·01	47·80	46·99	2	57·38	57·96	54·82	52·03	49·21
3	51·28	48·40	48·79	47·88	47·07	3	55·53	56·48	54·97	52·23	49·30
4	52·63	48·90	48·63	47·91	47·14	4	52·63	55·29	54·90	52·39	49·41
5	54·81	49·53	48·61	47·95	47·21	5	54·52	54·16	54·64	52·52	49·50
6	56·48	50·58	48·74	47·97	47·26	6	52·63	54·52	54·32	52·56	49·57
7	56·39	51·40	48·96	48·02	47·35	7	56·73	53·47	54·09	52·59	49·68
8	56·70	51·66	49·26	48·09	47·39	8	59·47	54·43	53·85	52·57	49·78
9	54·43	52·20	49·53	48·16	47·44	9	57·88	55·62	53·80	52·56	49·87
10	55·15	52·63	49·84	48·31	47·52	10	57·16	55·63	53·91	52·52	49·96
11	58·01	52·27	50·11	48·47	47·55	11	53·76	54·90	54·00	52·54	50·04
12	58·24	53·53	50·34	48·61	47·61	12	52·93	54·00	53·96	52·56	50·11
13	57·56	53·55	50·65	48·79	47·68	13	55·47	53·58	53·82	52·56	50·14
14	54·59	53·35	50·92	48·96	47·73	14	61·43	55·08	53·65	52·56	50·20
15	53·87	52·68	51·12	49·14	47·80	15	62·83	56·71	53·74	52·54	50·27
16	53·85	52·59	51·17	49·30	47·88	16	59·95	57·54	54·03	52·54	50·31
17	51·10	52·70	51·24	49·48	47·95	17	61·63	57·54	54·37	52·59	50·38
18	55·26	51·87	51·24	49·59	48·00	18	60·73	57·24	54·63	52·68	50·41
19	58·57	52·34	51·22	49·69	48·09	19	60·48	57·63	54·84	52·79	50·47
20	60·96	53·62	51·26	49·78	48·16	20	60·12	57·99	54·99	52·88	50·49
21	63·00	54·95	51·46	49·86	48·24	21	60·57	58·08	55·17	52·99	50·52
22	65·80	56·39	51·82	49·95	48·31	22	59·36	58·12	55·38	53·15	50·61
23	63·68	58·10	52·29	50·09	48·38	23	59·77	57·63	55·49	53·26	50·63
24	65·55	58·15	52·88	50·27	48·45	24	59·68	57·67	55·60	53·40	50·68
25	59·65	58·84	53·44	50·47	48·49	25	56·62	57·33	55·67	53·56	50·76
26	57·79	57·40	53·94	50·77	48·58	26	58·05	56·17	55·72	53·71	50·86
27	56·75	56·35	54·16	51·08	48·65	27	57·74	56·68	55·58	53·76	50·94
28	59·86	55·78	54·16	51·33	48·74	28	60·66	56·93	55·51	53·83	51·03
29	60·91	56·50	54·12	51·55	48·85	29	59·97	58·05	55·51	53·83	51·08
30	60·82	56·82	54·16	51·71	48·94	30	59·43	57·92	55·63	53·85	51·12
31	63·01	58·17	54·23	51·78	49·03						
Means	57·22	53·52	51·17	49·37	47·92	Means	58·21	56·45	54·70	52·85	50·22

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1909.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1909.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
July	°	°	°	°	°	Aug.	°	°	°	°	°
1	58·59	57·83	55·76	53·89	51·17	1	61·93	60·78	58·57	56·62	53·11
2	62·35	57·79	55·83	53·96	51·24	2	60·17	60·66	58·68	56·70	53·17
3	64·56	59·36	55·92	54·03	51·30	3	60·03	59·77	58·71	56·73	53·24
4	64·44	60·51	56·19	54·12	51·39	4	63·21	60·06	58·68	56·77	53·31
5	63·72	60·35	56·52	54·16	51·39	5	66·87	61·03	58·62	56·75	53·37
6	63·00	60·35	56·80	54·27	51·42	6	67·39	62·40	58·80	56·82	53·46
7	60·10	59·79	57·04	54·43	51·51	7	67·19	63·23	59·05	56·82	53·47
8	60·12	59·25	57·15	54·61	51·58	8	65·95	63·54	59·40	56·91	53·55
9	60·42	58·82	57·15	54·72	51·62	9	68·05	63·81	59·72	57·04	53·60
10	60·80	59·59	57·09	54·82	51·67	10	68·25	64·35	60·03	57·15	53·64
11	58·95	59·05	57·13	54·88	51·73	11	69·17	64·89	60·31	57·27	53·67
12	58·06	58·06	57·15	54·95	51·78	12	69·60	65·28	60·67	57·47	53·76
13	61·72	58·46	57·06	55·04	51·85	13	69·19	65·75	60·96	57·63	53·78
14	64·36	59·52	56·98	55·06	51·91	14	69·66	65·50	61·30	57·81	53·83
15	63·72	60·51	57·13	55·09	51·98	15	69·24	65·86	61·56	58·06	53·96
16	60·73	60·49	57·33	55·15	52·05	16	68·67	66·70	61·79	58·23	54·00
17	64·83	60·17	57·61	55·27	52·16	17	66·33	65·62	62·04	58·39	54·01
18	65·12	61·43	57·69	55·36	52·21	18	64·26	64·38	62·26	58·71	54·12
19	67·41	62·58	57·94	55·45	52·27	19	64·02	63·66	62·28	59·07	54·36
20	67·62	62·49	58·30	55·56	52·34	20	63·48	63·46	62·13	59·29	54·50
21	64·02	63·00	58·59	55·69	52·38	21	62·98	62·80	61·97	59·34	54·59
22	63·30	62·31	58·87	55·85	52·43	22	60·93	62·47	61·77	59·36	54·68
23	63·27	61·90	58·98	55·98	52·47	23	60·48	61·66	61·56	59·36	54·77
24	61·16	61·18	59·04	56·12	52·52	24	61·88	61·48	61·30	59·34	54·84
25	60·21	60·89	59·04	56·26	52·57	25	62·53	61·56	61·07	59·29	54·90
26	60·01	60·10	58·95	56·39	52·66	26	62·19	61·92	60·94	59·25	54·99
27	59·18	59·74	58·87	56·52	52·75	27	60·94	61·29	60·85	59·18	55·04
28	60·96	59·40	58·77	56·61	52·84	28	62·62	60·89	60·73	59·13	55·09
29	62·33	60·12	58·59	56·61	52·92	29	60·49	61·27	60·58	59·05	55·11
30	61·05	60·30	58·55	56·62	52·97	30	60·58	61·08	60·54	59·06	55·22
31	62·56	60·42	58·55	56·62	53·04	31	58·06	60·46	60·39	58·95	55·20
Means	62·22	60·19	57·63	55·29	52·07	Means	64·40	62·83	60·56	58·11	54·14

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1909.	Depth.					1909.	Depth.				
	I.	II.	III.	IV.	V.		I.	II.	III.	IV.	V.
	ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½		ft. in. 0 6½	ft. in. 1 6	ft. in. 3 6½	ft. in. 5 8½	ft. in. 9 11½
Sept.	°	°	°	°	°	Oct.	°	°	°	°	°
1	56·59	59·18	60·24	58·91	55·29	1	56·59	55·85	56·39	56·25	55·09
2	56·35	58·21	59·90	58·82	55·29	2	56·57	56·21	56·23	56·10	55·00
3	56·43	58·10	59·58	58·75	55·35	3	57·15	56·61	56·23	56·08	55·00
4	58·15	58·46	59·31	58·66	55·38	4	58·96	57·22	56·23	55·99	54·93
5	57·67	58·48	59·05	58·51	55·40	5	58·91	57·54	56·41	56·03	54·97
6	60·08	58·75	58·86	58·33	55·44	6	55·90	56·75	56·48	55·98	54·90
7	57·83	58·89	58·82	58·26	55·44	7	54·27	55·98	56·62	56·08	55·00
8	54·00	57·83	58·78	58·17	55·44	8	57·43	55·98	56·52	56·30	55·00
9	55·62	56·70	58·59	58·06	55·44	9	54·19	55·42	56·37	56·10	54·99
10	53·33	56·68	58·30	57·97	55·42	10	54·55	55·31	56·26	56·08	54·97
11	55·74	56·30	57·99	57·85	55·40	11	57·74	55·71	56·05	55·99	54·93
12	54·95	56·53	57·79	57·76	55·45	12	55·58	55·90	56·03	55·99	54·95
13	56·19	56·84	57·56	57·58	55·40	13	55·58	55·62	55·99	55·92	54·95
14	56·80	56·62	57·47	57·45	55·42	14	53·38	54·82	55·92	55·85	54·95
15	56·84	56·68	57·36	57·33	55·40	15	55·08	54·68	55·80	55·81	54·91
16	56·05	56·77	57·25	57·18	55·35	16	56·34	55·18	55·60	55·71	54·88
17	56·64	56·57	57·20	57·11	55·35	17	57·36	55·92	55·56	55·69	54·90
18	55·47	55·24	56·68	56·98	55·47	18	56·28	55·90	55·62	55·62	54·84
19	55·08	55·49	56·53	56·91	55·54	19	56·05	55·71	55·74	55·62	54·86
20	55·29	55·67	56·43	56·77	55·53	20	55·78	55·65	55·80	55·63	54·90
21	53·49	55·35	56·39	56·66	55·47	21	55·56	55·69	55·71	55·53	54·79
22	56·50	55·38	56·34	56·59	55·44	22	52·99	54·81	55·65	55·49	54·75
23	57·34	56·39	56·28	56·50	55·40	23	54·61	54·55	55·54	55·47	54·73
24	58·35	56·82	56·34	56·44	55·35	24	52·43	55·54	55·42	55·47	54·77
25	58·28	57·15	56·41	56·34	55·27	25	49·42	53·19	55·35	55·45	54·77
26	57·29	57·31	56·55	56·30	55·26	26	46·65	51·57	55·04	55·36	54·72
27	56·44	57·00	56·70	56·32	55·24	27	46·89	50·45	54·57	55·31	54·73
28	54·91	56·61	56·71	56·30	55·18	28	46·54	49·89	54·01	55·17	54·75
29	55·22	56·01	56·66	56·30	55·17	29	45·41	49·17	53·51	54·97	54·70
30	55·67	55·71	56·48	56·23	55·09	30	42·33	47·77	53·04	54·72	54·68
						31	41·72	46·90	52·56	54·54	54·64
Means	56·29	56·92	57·62	57·38	55·37	Means	53·49	54·44	55·56	55·69	54·87

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1909.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1909.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Nov.	°	°	°	°	°	Dec.	°	°	°	°	°
1	45·43	46·87	51·94	54·25	54·57	1	41·36	43·03	45·37	48·25	52·14
2	46·67	47·57	51·53	53·98	54·55	2	40·78	42·75	45·46	48·16	52·02
3	49·14	48·45	51·24	53·71	54·52	3	41·95	43·20	45·41	48·06	51·89
4	49·95	49·41	51·19	53·46	54·45	4	40·23	42·62	45·45	48·04	51·82
5	50·18	49·89	51·21	53·24	54·39	5	36·81	41·83	45·39	47·95	51·75
6	45·77	49·35	51·30	53·10	54·34	6	38·34	41·02	45·19	47·86	51·64
7	45·86	48·38	51·31	52·99	54·27	7	37·71	40·69	44·94	47·77	51·55
8	43·81	47·68	51·15	52·88	54·19	8	36·23	40·26	44·67	47·62	51·42
9	41·32	46·36	50·86	52·75	54·09	9	34·74	39·43	44·38	47·44	51·30
10	43·47	46·11	50·50	52·59	54·01	10	40·41	39·60	44·10	47·32	51·21
11	42·22	45·57	50·11	52·41	53·89	11	43·47	41·49	43·70	47·01	50·99
12	45·43	45·84	49·86	52·29	53·89	12	41·41	42·46	43·95	47·01	51·03
13	44·98	46·58	49·59	52·05	53·78	13	41·27	42·04	44·04	46·76	50·88
14	40·96	45·95	49·50	51·87	53·73	14	39·78	41·81	44·08	46·63	50·72
15	40·82	44·69	49·23	51·64	53·60	15	39·18	41·52	44·22	46·67	50·74
16	38·93	43·84	48·90	51·51	53·53	16	37·56	40·89	44·17	46·62	50·61
17	39·65	43·14	48·52	51·30	53·46	17	39·45	40·59	44·04	46·56	50·52
18	41·16	43·20	48·15	51·12	53·38	18	39·54	40·93	43·92	46·51	50·41
19	38·82	42·93	47·84	50·94	53·29	19	36·95	40·46	43·74	46·35	50·27
20	37·38	42·15	47·50	50·63	53·19	20	34·90	39·56	43·61	46·27	50·16
21	36·72	41·47	47·16	50·36	53·04	21	34·02	38·52	43·36	46·15	50·09
22	36·68	41·22	46·83	50·23	53·02	22	34·74	37·87	43·09	46·09	50·07
23	35·58	40·57	46·45	49·95	52·92	23	41·41	39·13	42·66	45·90	50·02
24	34·97	40·08	46·13	49·73	52·83	24	39·54	40·55	42·39	45·61	49·84
25	38·26	40·10	45·79	49·48	52·74	25	37·13	39·90	42·58	45·54	49·78
26	39·02	40·68	45·46	49·26	52·66	26	39·81	39·52	42·58	45·39	49·69
27	38·80	41·00	45·27	49·05	52·59	27	42·76	40·89	42·62	45·37	49·64
28	41·00	41·25	45·14	48·79	52·48	28	45·52	42·60	42·71	45·30	49·57
29	44·85	42·75	45·07	48·56	52·38	29	42·73	43·27	43·09	45·27	49·48
30	42·15	43·43	45·18	48·36	52·23	30	38·68	41·81	43·30	45·18	49·33
						31	41·50	41·49	43·50	45·28	49·32
Means	42·00	44·55	48·66	51·42	53·53	Means	39·35	41·02	43·93	46·64	50·64

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1910.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1910.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Jan.	°	°	°	°	°	Feb.	°	°	°	°	°
1	38·82	41·32	43·43	45·30	49·21	1	36·03	36·27	40·33	43·77	47·86
2	42·55	41·54	43·48	45·39	49·19	2	37·42	37·22	40·12	43·50	47·71
3	44·53	42·94	43·41	45·32	49·10	3	37·58	37·69	40·23	43·43	47·70
4	43·81	43·27	43·48	45·21	48·94	4	35·65	37·69	40·28	43·29	47·62
5	42·69	43·38	43·77	45·32	48·92	5	35·73	37·35	40·39	43·25	47·59
6	41·38	42·98	43·95	45·34	48·87	6	41·31	38·52	40·33	43·16	47·52
7	40·86	42·48	44·06	45·45	48·85	7	44·24	40·73	40·51	43·14	47·41
8	40·68	42·08	43·97	45·46	48·79	8	41·29	41·45	40·95	43·12	47·43
9	42·35	42·37	44·01	45·55	48·79	9	37·65	40·35	41·32	43·12	47·34
10	44·40	43·56	43·97	45·57	48·76	10	37·26	39·22	41·41	43·14	47·19
11	42·06	43·38	44·10	45·57	48·72	11	39·63	39·51	41·45	43·21	47·17
12	38·57	42·15	44·13	45·50	48·61	12	37·69	39·34	41·34	43·21	47·05
13	36·61	40·95	44·13	45·59	48·63	13	40·39	39·78	41·52	43·38	47·14
14	41·90	40·82	43·88	45·59	48·61	14	41·88	40·66	41·49	43·38	47·07
15	40·68	41·72	43·59	45·46	48·51	15	41·31	40·86	41·56	43·30	46·98
16	44·40	42·30	43·52	45·41	48·47	16	38·98	40·37	41·65	43·25	46·89
17	41·36	42·91	43·65	45·37	48·45	17	43·93	40·86	41·74	43·32	46·83
18	40·64	42·06	43·79	45·37	48·43	18	43·93	42·13	41·90	43·45	46·92
19	40·06	41·85	43·74	45·32	48·34	19	43·93	42·51	42·08	43·39	46·83
20	38·21	41·04	43·72	45·34	48·34	20	42·60	42·80	42·30	43·41	46·76
21	35·56	40·17	43·54	45·28	48·27	21	41·74	42·37	42·64	43·59	46·80
22	34·38	39·15	43·43	45·36	48·33	22	41·31	41·95	42·69	43·59	46·69
23	34·03	38·46	43·18	45·36	48·36	23	41·94	41·65	42·75	43·68	46·67
24	36·63	38·07	42·69	45·23	48·29	24	40·87	41·52	42·73	43·74	46·63
25	35·28	38·34	42·39	45·07	48·24	25	41·65	41·40	42·58	43·66	46·49
26	33·73	37·71	42·10	44·89	48·16	26	41·45	41·04	42·42	43·56	46·35
27	33·17	37·09	41·83	44·71	48·07	27	38·88	41·25	42·44	43·59	46·40
28	33·12	36·68	41·58	44·62	48·13	28	39·36	40·57	42·58	43·81	46·53
29	33·10	36·27	41·07	44·29	48·04						
30	33·19	36·12	40·77	44·10	47·97						
31	33·26	36·00	40·51	43·93	47·91						
Means	38·77	40·62	43·19	45·20	48·53	Means	40·20	40·25	41·56	43·41	47·06

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1910.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1910.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Mar.	°	°	°	°	°	Apr.	°	°	°	°	°
1	39·52	40·30	42·46	43·75	46·47	1	42·25	43·31	44·07	44·61	46·32
2	41·16	40·57	42·42	43·83	46·51	2	43·49	42·66	43·91	44·48	46·17
3	42·06	41·29	42·35	43·83	46·51	3	40·85	43·11	43·91	44·57	46·19
4	40·51	41·25	42·40	43·81	46·54	4	43·59	42·94	43·92	44·59	46·18
5	40·82	40·86	42·35	43·70	46·45	5	43·02	43·16	43·88	44·58	46·17
6	42·58	41·58	42·44	43·75	46·47	6	41·81	43·03	43·90	44·64	46·20
7	44·33	42·08	42·39	43·66	46·40	7	43·63	42·98	43·86	44·60	46·15
8	44·60	42·82	42·48	43·61	46·33	8	44·10	43·18	43·83	44·55	46·11
9	45·73	43·61	42·84	43·79	46·47	9	44·62	43·20	43·81	44·51	46·04
10	44·87	43·84	42·98	43·74	46·35	10	45·21	43·95	43·81	44·51	46·04
11	44·35	43·66	43·18	43·75	46·26	11	47·95	44·35	43·93	44·55	46·02
12	42·93	43·83	43·50	43·99	46·40	12	47·46	45·23	44·15	44·60	46·06
13	41·09	43·03	43·66	44·11	46·42	13	48·78	46·04	44·37	44·64	46·04
14	41·95	42·24	43·52	44·06	46·29	14	49·23	46·54	44·64	44·71	46·06
15	41·31	41·90	43·39	44·11	46·22	15	50·02	46·60	44·92	44·76	46·04
16	41·59	41·77	43·38	44·24	46·33	16	49·21	46·78	45·23	44·94	46·09
17	44·17	42·44	43·25	44·22	46·35	17	46·67	46·85	45·55	45·10	46·18
18	42·26	43·14	43·56	44·53	46·60	18	46·78	46·54	45·77	45·34	46·20
19	41·04	42·12	43·50	44·40	46·47	19	49·86	47·03	45·82	45·41	46·22
20	39·88	41·59	43·38	44·31	46·36	20	50·86	47·79	45·95	45·52	46·22
21	44·29	42·17	43·27	44·31	46·36	21	52·21	48·61	46·17	45·61	46·26
22	45·05	42·91	43·21	44·29	46·27	22	52·16	49·10	46·42	45·68	46·22
23	42·98	42·82	43·27	44·20	46·20	23	47·62	48·52	46·76	45·82	46·27
24	43·54	42·76	43·29	44·19	46·18	24	48·09	47·88	46·90	45·90	46·22
25	43·61	43·25	43·38	44·15	46·13	25	48·15	47·80	47·01	46·11	46·38
26	42·57	43·27	43·52	44·24	46·18	26	48·65	47·30	46·94	46·15	46·29
27	41·86	42·91	43·72	44·38	46·24	27	49·59	47·61	47·41	46·76	46·81
28	42·96	43·25	43·72	44·42	46·24	28	49·64	48·06	47·41	46·85	46·85
29	45·63	43·57	43·75	44·44	46·27	29	47·70	47·32	47·43	46·90	46·89
30	44·37	43·97	44·11	44·74	46·54	30	46·69	46·89	47·37	46·96	46·94
31	44·44	44·24	44·24	44·82	46·60						
Means	42·84	42·55	43·19	44·11	46·37	Means	47·00	45·81	45·30	45·26	46·26

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1910.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1910.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
May	°	°	°	°	°	June	°	°	°	°	°
1	48·27	47·08	47·26	46·99	46·94	1	57·76	56·12	54·10	51·28	48·56
2	50·31	48·16	47·21	47·01	47·01	2	59·34	56·35	54·10	51·49	48·70
3	51·76	47·86	47·28	47·01	47·01	3	62·29	56·66	54·18	51·69	48·87
4	50·54	48·70	47·35	46·99	47·03	4	63·55	57·61	54·30	51·85	49·01
5	48·04	48·25	47·52	47·05	47·07	5	60·21	58·71	54·48	51·96	49·08
6	51·57	48·13	47·59	47·12	47·08	6	61·70	57·69	54·79	52·09	49·19
7	49·96	48·27	47·66	47·17	47·12	7	60·71	58·62	54·90	52·21	49·26
8	47·39	48·18	47·71	47·25	47·19	8	64·26	59·09	55·27	52·50	49·50
9	45·72	47·08	47·77	47·34	47·26	9	66·79	60·60	55·54	52·66	49·62
10	46·33	46·33	47·64	47·39	47·28	10	62·76	61·09	56·25	53·01	49·84
11	50·52	46·54	47·44	47·39	47·30	11	62·74	60·91	56·86	53·44	50·16
12	52·38	48·04	47·34	47·37	47·34	12	63·79	60·80	57·06	53·64	50·18
13	51·46	49·41	47·64	47·55	47·57	13	66·06	61·52	57·22	53·89	50·32
14	53·01	49·50	47·88	47·53	47·57	14	63·39	60·98	57·38	54·03	50·38
15	52·45	50·56	48·07	47·55	47·55	15	63·12	60·64	57·51	54·16	50·45
16	58·44	51·82	48·42	47·64	47·59	16	64·83	61·38	57·69	54·45	50·61
17	57·06	53·58	48·92	47·79	47·66	17	61·41	61·36	57·60	54·43	50·63
18	58·93	53·58	49·50	47·97	47·71	18	66·47	60·96	57·70	54·55	50·67
19	57·43	54·48	49·98	48·20	47·77	19	67·68	62·44	57·79	54·70	50·81
20	62·10	54·99	50·41	48·36	47·77	20	70·30	63·90	58·12	54·82	50·85
21	59·47	56·21	50·86	48·61	47·82	21	68·50	64·45	58·51	54·91	50·88
22	59·07	55·98	51·22	48·76	47·66	22	66·90	64·26	58·95	55·00	50·92
23	64·67	56·86	51·57	48·99	47·82	23	64·85	63·50	59·31	55·33	51·08
24	60·91	57·52	51·98	49·17	47·75	24	63·46	62·94	59·40	55·49	51·12
25	58·19	56·97	52·45	49·42	47·79	25	63·18	62·40	59·45	55·69	51·21
26	59·86	55·96	52·74	49·64	47·80	26	61·07	61·99	59·38	55·81	51·26
27	59·07	56·75	52·86	49·89	47·88	27	59·32	60·71	59·20	55·89	51·28
28	62·74	56·88	53·24	50·32	48·15	28	61·25	60·17	59·18	56·16	51·55
29	59·88	57·70	53·49	50·58	48·27	29	61·36	60·08	58·91	56·19	51·62
30	60·03	57·45	53·73	50·81	48·38	30	59·83	60·17	58·75	56·21	51·75
31	57·20	56·68	53·83	50·90	48·36						
Means	54·99	52·11	49·63	48·25	47·56	Means	63·30	60·60	57·13	53·98	50·31

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1910.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1910.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
July	°	°	°	°	°	Aug.	°	°	°	°	°
1	60·06	59·79	58·62	56·23	51·84	1	64·18	61·72	58·50	56·57	53·49
2	59·92	59·67	58·48	56·21	51·94	2	62·06	61·72	58·71	56·61	53·51
3	59·18	59·27	58·32	56·14	51·98	3	61·41	60·57	58·89	56·68	53·55
4	59·29	58·96	58·21	56·16	52·05	4	61·88	60·51	58·91	56·75	53·58
5	59·76	59·13	58·05	56·12	52·12	5	63·64	60·91	58·91	56·80	53·58
6	60·93	59·59	57·92	56·08	52·20	6	62·06	60·93	58·93	56·79	53·60
7	58·08	59·11	57·92	56·08	52·27	7	61·41	60·66	58·95	56·89	53·65
8	57·61	58·32	57·85	56·07	52·34	8	61·99	60·85	58·96	56·88	53·67
9	58·44	58·30	57·70	56·03	52·39	9	61·45	60·87	58·95	56·95	53·71
10	57·85	58·51	57·54	55·99	52·47	10	63·05	60·53	58·95	56·95	53·76
11	60·19	58·44	57·61	56·10	52·66	11	64·67	61·23	59·00	57·02	53·80
12	61·65	59·32	57·52	56·01	52·68	12	63·81	62·08	59·09	57·02	53·83
13	62·98	60·46	57·56	55·99	52·74	13	62·46	61·75	59·23	57·09	53·87
14	65·28	61·21	57·79	55·96	52·77	14	62·78	61·36	59·29	57·04	53·89
15	63·84	62·28	58·05	55·96	52·79	15	65·64	62·02	59·36	57·20	53·92
16	61·66	61·61	58·39	55·98	52·79	16	64·42	62·08	59·49	57·24	53·98
17	61·90	61·27	58·57	56·08	52·86	17	62·62	62·19	59·61	57·33	54·03
18	60·22	60·64	58·66	56·19	52·93	18	63·45	61·81	59·86	57·56	54·23
19	61·63	59·97	58·68	56·30	52·95	19	64·78	61·99	59·83	57·58	54·21
20	62·49	60·62	58·62	56·37	53·02	20	62·60	61·95	59·90	57·67	54·30
21	62·92	60·80	58·64	56·44	53·04	21	61·54	61·65	59·94	57·72	54·34
22	62·06	61·12	58·62	56·44	53·08	22	61·68	61·39	59·90	57·78	54·37
23	61·12	60·91	58·77	56·55	53·11	23	61·18	61·20	59·88	57·83	54·45
24	58·96	60·21	58·73	56·57	53·19	24	63·34	61·00	59·81	57·85	54·46
25	60·15	59·50	58·64	56·59	53·22	25	61·57	61·30	59·74	57·87	54·50
26	59·16	59·68	58·59	56·62	53·28	26	62·78	61·25	59·70	57·88	54·55
27	58·68	59·11	58·51	56·62	53·33	27	60·46	60·84	59·72	57·90	54·61
28	62·02	59·16	58·30	56·62	53·38	28	59·16	60·30	59·68	57·92	54·66
29	62·28	60·24	58·24	56·64	53·38	29	58·48	59·50	59·54	57·92	54·70
30	62·08	60·46	58·28	56·55	53·44	30	59·29	59·22	59·31	57·92	54·75
31	63·91	60·69	58·39	56·57	53·46	31	59·97	59·31	59·13	57·90	54·79
Means	60·85	59·95	58·25	56·27	52·76	Means	62·25	61·12	59·34	57·33	54·08

Temperature of the Ground at different depths below the Surface, read daily near Noon.

1910.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½	1910.	Depth. I. ft. in. 0 6½	II. ft. in. 1 6	III. ft. in. 3 6½	IV. ft. in. 5 8½	V. ft. in. 9 11½
Sept.	°	°	°	°	°	Oct.	°	°	°	°	°
1	60·89	59·56	59·00	57·85	54·84	1	56·98	56·59	56·14	55·72	54·64
2	61·50	59·85	58·93	57·78	54·88	2	58·51	57·00	56·21	55·72	54·61
3	60·84	60·39	58·91	57·72	54·90	3	57·61	57·31	56·25	55·71	54·59
4	58·10	59·67	58·89	57·61	54·90	4	56·68	56·53	56·35	55·71	54·55
5	56·62	58·66	58·86	57·56	54·88	5	56·57	56·34	56·35	55·74	54·55
6	57·06	58·14	58·68	57·56	54·88	6	56·01	56·34	56·44	55·92	54·75
7	57·22	58·05	58·46	57·51	54·88	7	55·78	55·85	56·35	55·90	54·70
8	58·51	58·06	58·32	57·49	54·95	8	57·04	55·99	56·25	55·85	54·66
9	58·28	58·42	58·17	57·40	54·91	9	55·98	56·21	56·16	55·81	54·64
10	57·20	58·06	58·12	57·33	54·93	10	57·69	56·32	56·12	55·76	54·64
11	58·53	58·10	58·05	57·27	54·93	11	56·89	56·41	56·14	55·76	54·64
12	58·77	58·46	57·97	57·22	54·95	12	54·16	56·32	56·12	55·74	54·66
13	58·44	58·03	57·94	57·16	54·95	13	53·42	55·13	56·07	55·72	54·68
14	55·26	57·61	57·88	57·09	54·97	14	51·57	54·32	55·94	55·72	54·70
15	55·51	56·71	57·78	57·07	54·95	15	50·20	53·47	55·69	55·69	54·70
16	56·80	56·68	57·54	57·02	54·95	16	51·35	52·65	55·35	55·58	54·63
17	56·95	56·77	57·38	56·95	54·95	17	53·24	53·06	54·97	55·47	54·61
18	57·16	56·95	57·27	56·91	54·93	18	52·88	53·33	54·73	55·33	54·57
19	56·43	56·88	57·15	56·79	54·95	19	53·46	53·37	54·57	55·18	54·55
20	54·68	56·07	57·09	56·71	54·95	20	52·25	53·28	54·48	55·04	54·52
21	53·26	55·11	56·95	56·64	54·95	21	50·76	52·56	54·36	54·93	54·48
22	53·71	54·77	56·66	56·55	54·91	22	50·58	52·16	54·19	54·82	54·46
23	53·49	54·37	56·37	56·43	54·90	23	50·31	51·91	54·00	54·72	54·43
24	55·38	54·63	56·12	56·32	54·88	24	50·40	51·73	53·80	54·61	54·41
25	55·69	55·20	55·98	56·19	54·81	25	50·88	51·60	53·58	54·50	54·37
26	56·39	55·78	55·87	56·03	54·82	26	52·77	51·93	53·38	54·34	54·37
27	58·64	55·83	55·87	55·96	54·81	27	51·91	52·47	53·42	54·34	54·36
28	57·74	56·08	55·90	55·85	54·77	28	50·76	52·25	53·37	54·21	54·34
29	58·48	56·66	55·92	55·78	54·68	29	50·79	51·93	53·37	54·18	54·33
30	58·53	56·79	56·03	55·76	54·68	30	50·58	51·82	53·29	54·10	54·28
						31	47·28	51·55	53·13	53·94	54·21
Means	57·20	57·21	57·47	56·92	54·89	Means	53·40	54·12	55·05	55·22	54·54

Mean Monthly Temperature of the Ground at the Radcliffe Observatory.

Thermometer I. Depth 6½ in.

Year.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
1898	...	...	...	...	...	...	...	...	...	...	46·17	43·89	...
1899	40·47	40·09	41·34	48·73	54·86	66·73	69·43	69·23	59·34	48·99	46·73	38·14	52·007
1900	39·07	37·35	39·72	48·10	54·45	62·42	68·26	63·95	59·77	51·59	46·50	44·56	51·312
1901	38·69	36·52	40·15	49·03	57·53	63·45	68·71	65·43	60·08	52·12	42·65	38·64	51·083
1902	40·95	35·83	44·11	48·12	52·55	60·58	64·78	62·27	58·45	50·75	44·93	40·39	50·309
1903	38·62	43·42	44·73	46·47	55·71	60·29	64·42	61·38	58·89	52·92	44·31	39·23	50·866
1904	37·92	38·66	41·32	49·93	55·15	61·26	68·01	64·03	57·35	51·17	43·41	39·55	50·647
1905	36·68	40·32	44·83	47·34	56·03	61·71	68·27	63·52	57·35	47·08	41·71	40·20	50·420
1906	40·04	37·67	41·85	47·48	54·49	62·26	65·97	66·33	61·85	54·23	46·10	39·57	51·487
1907	37·96	36·63	43·14	48·49	54·93	57·61	61·33	61·24	59·30	51·48	45·20	40·92	49·853
1908	35·90	39·82	40·86	44·86	56·84	62·23	64·90	63·12	56·96	54·55	46·34	41·17	50·629
1909	37·73	35·49	39·47	49·89	57·55	58·04	62·24	64·40	56·22	53·31	41·90	39·20	49·620
1910	38·87	39·86	42·84	47·11	55·21	63·28	60·89	62·10	57·10	53·19	...	...	...
Means	38·575	38·472	42·030	47·963	55·442	61·655	65·601	63·917	58·555	51·782	44·663	40·455	

Thermometer II. Depth 1 ft. 6 in.

Year.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
1898	...	...	...	...	...	...	...	...	...	...	48·51	45·35	...
1899	42·07	41·34	41·91	47·46	52·95	62·89	65·93	67·79	61·12	51·14	48·48	41·08	52·013
1900	40·28	38·40	40·72	46·41	52·91	59·64	65·00	63·25	60·27	53·68	48·39	45·83	51·232
1901	40·85	38·16	40·94	46·98	54·79	60·75	65·69	64·52	60·14	54·16	45·53	40·78	51·108
1902	42·06	37·52	43·85	47·29	50·70	57·45	62·66	60·96	58·42	52·19	46·94	42·29	50·194
1903	40·27	43·59	44·55	46·21	52·80	57·79	62·41	60·54	58·49	54·00	46·58	41·49	50·727
1904	39·40	39·99	41·38	48·19	52·96	58·63	64·53	62·88	57·87	52·53	46·12	41·22	50·475
1905	38·87	40·89	44·14	46·86	53·17	59·24	64·82	62·69	57·73	49·52	43·85	41·86	50·303
1906	41·13	39·29	42·02	46·56	51·78	58·89	62·84	64·33	62·02	55·30	47·65	42·47	51·190
1907	39·87	37·95	42·79	47·73	52·59	56·15	59·70	60·52	59·08	53·10	47·26	42·69	49·953
1908	37·87	40·64	41·34	44·64	53·74	59·65	62·80	62·77	56·82	55·46	48·04	43·55	50·610
1909	39·69	37·34	39·05	47·67	53·70	56·28	60·15	62·76	56·76	54·26	44·37	40·83	49·405
1910	40·63	39·97	42·51	45·80	52·26	60·59	59·87	60·96	57·05	53·90	...	...	...
Means	40·249	39·590	42·100	46·817	52·863	58·996	63·033	62·831	58·814	53·270	46·810	42·453	

Mean Monthly Temperature of the Ground at the Radcliffe Observatory.

Thermometer III. Depth 3 ft. 6½ in.

Year.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
1898	...	...	...	...	...	...	...	...	...	...	51·39	47·66	...
1899	44·68	43·25	43·21	46·61	50·96	58·29	62·15	64·88	62·03	54·29	50·99	45·35	52·224
1900	42·58	40·63	42·11	44·97	50·74	56·13	60·62	61·91	59·97	55·93	51·16	47·94	51·224
1901	43·98	41·26	42·29	45·26	51·89	57·55	61·95	63·01	60·23	56·31	49·53	44·43	51·474
1902	43·61	40·66	43·60	46·37	49·32	54·12	59·92	59·37	58·46	54·15	49·93	45·16	50·389
1903	43·09	44·07	44·89	46·48	50·21	55·20	59·54	59·36	57·96	55·40	49·71	44·96	50·906
1904	42·32	41·89	42·18	46·60	50·74	55·68	60·61	61·71	58·58	54·30	49·89	44·36	50·738
1905	42·10	42·04	43·84	46·59	50·55	55·63	61·13	61·69	58·48	52·91	47·24	44·39	50·549
1906	43·12	41·75	42·75	45·62	49·62	55·36	59·64	61·91	61·67	56·81	50·39	46·36	51·250
1907	42·84	40·44	42·76	46·86	50·45	54·35	57·21	59·23	58·50	54·93	49·90	45·14	50·217
1908	41·15	41·94	42·40	44·67	50·07	56·25	59·82	61·26	57·27	56·34	50·73	46·88	50·732
1909	42·94	40·45	39·96	46·00	51·20	54·59	57·57	60·47	57·43	55·38	48·41	43·73	49·844
1910	43·13	41·41	43·09	45·26	49·70	57·13	58·10	59·22	57·28	54·86	...	...	...
Means	42·962	41·649	42·757	45·941	50·454	55·857	59·855	61·168	58·988	55·134	49·939	45·530	

Thermometer IV. Depth 5 ft. 8½ in.

Year.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
1898	...	...	...	...	...	...	...	...	...	...	52·85	49·47	. .
1899	46·80	45·08	44·74	46·40	49·54	54·73	58·74	61·66	61·19	56·12	52·69	48·58	52·189
1900	45·05	43·10	43·34	44·74	49·19	53·35	57·17	59·76	58·98	56·71	52·99	49·81	51·183
1901	46·58	44·06	43·71	44·93	49·76	54·68	58·52	60·76	59·58	57·09	52·19	47·58	51·620
1902	45·44	43·58	44·14	46·14	48·50	51·83	56·75	57·61	57·57	54·99	51·82	47·64	50·501
1903	45·58	45·02	45·60	46·79	48·80	53·10	56·63	57·79	57·16	55·74	51·77	47·75	50·978
1904	45·12	43·77	43·58	46·01	49·27	53·15	57·14	59·71	58·12	55·14	52·06	47·32	50·866
1905	44·83	43·68	44·43	46·54	49·02	53·00	57·61	59·68	58·16	54·59	49·88	46·72	50·678
1906	45·14	43·87	43·80	45·41	48·39	52·56	56·74	59·26	60·14	57·23	52·56	49·02	51·177
1907	45·49	43·11	43·64	46·41	49·10	52·58	55·05	57·45	57·38	55·56	51·69	47·30	50·397
1908	44·20	43·59	43·80	45·02	48·10	53·33	56·92	59·00	57·12	56·24	52·57	49·21	50·758
1909	45·78	43·32	41·85	45·17	49·39	52·79	55·26	58·04	57·22	55·55	51·19	46·47	50·169
1910	45·11	43·31	44·01	45·21	48·26	54·02	56·15	57·22	56·75	55·07	...	...	...
Means	45·427	43·791	43·887	45·731	48·943	53·260	56·890	58·995	58·281	55·836	52·022	48·073	

Mean Monthly Temperature of the Ground at the Radcliffe Observatory.

Thermometer V. Depth 9 ft. 11½ in.

Year.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
1898	...	...	...	...	...	...	...	...	...	...	53·43	51·85	...
1899	49·97	48·33	47·42	47·37	48·53	50·88	53·85	56·39	57·80	56·71	54·48	52·33	52·005
1900	49·48	47·38	46·19	46·16	47·84	50·11	52·70	55·29	56·23	55·97	54·42	52·36	51·178
1901	50·24	48·26	46·85	46·56	48·19	51·06	53·85	56·46	57·14	56·54	54·56	51·67	51·782
1902	49·14	47·82	46·66	47·13	48·16	49·70	52·27	54·32	55·18	54·80	53·39	51·08	50·804
1903	49·14	47·73	47·47	47·68	48·27	50·64	52·63	54·64	55·24	55·02	53·65	51·38	51·124
1904	49·17	47·32	46·49	46·65	48·09	50·19	52·67	55·51	56·04	55·18	53·70	51·20	51·018
1905	48·92	47·22	46·68	47·16	48·14	50·20	52·90	55·46	56·11	55·14	52·79	50·29	50·918
1906	48·54	47·27	46·34	46·45	47·66	49·61	52·45	54·75	56·39	56·22	54·45	52·11	51·020
1907	49·57	47·58	46·46	46·98	48·22	50·24	52·04	53·98	54·89	54·97	53·38	50·39	50·725
1908	48·48	46·90	46·38	46·31	47·17	49·76	52·54	54·78	55·47	55·06	53·92	51·93	50·725
1909	49·69	47·69	45·96	45·97	47·86	50·15	52·00	54·04	55·23	54·73	53·36	50·46	50·595
1910	48·41	46·92	46·22	46·14	47·48	50·28	52·68	53·96	54·74	54·39	...	...	...
Means	49·229	47·535	46·593	46·713	47·968	50·235	52·715	54·965	55·872	55·394	53·794	51·421	

Mean Monthly Temperature of the Air at a height of 4 ft. above Surface.

Year.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
1898	...	...	...	...	...	...	...	...	...	...	45·65	45·80	...
1899	42·05	41·81	41·10	46·90	51·34	61·64	65·24	66·02	57·34	47·82	46·90	36·46	50·385
1900	40·40	37·39	38·47	48·27	51·17	58·56	66·26	60·16	57·30	50·55	45·90	45·61	50·003
1901	38·10	35·88	39·23	48·49	53·31	58·67	65·14	61·48	57·53	49·75	40·22	38·74	48·878
1902	41·42	35·02	44·65	46·46	48·46	57·49	60·31	59·10	55·65	49·72	44·64	40·77	48·641
1903	40·26	44·96	45·46	44·19	52·22	55·57	60·38	58·60	56·50	51·84	43·80	38·71	49·374
1904	39·40	38·65	40·33	48·78	52·27	57·01	64·17	60·56	54·54	49·42	40·94	39·25	48·777
1905	37·94	41·86	44·86	45·71	52·60	58·32	64·84	59·64	54·92	45·05	41·17	39·85	48·897
1906	42·32	37·96	41·54	46·18	52·00	58·49	62·62	64·22	58·49	52·65	45·85	37·76	50·007
1907	38·43	37·47	44·18	46·13	52·09	55·03	57·79	59·19	57·14	50·41	44·49	41·54	48·658
1908	36·49	42·03	40·09	42·96	55·53	59·33	61·78	59·51	55·57	53·00	46·21	39·52	49·335
1909	38·22	36·51	39·04	49·15	53·76	53·27	58·93	61·61	54·02	52·04	41·25	40·33	48·178
1910	39·38	42·11	42·66	45·97	52·62	59·30	57·06	59·99	54·89	51·73	...	...	...
Means	39·534	39·304	41·801	46·599	52·281	57·723	62·043	60·840	56·158	50·332	43·918	40·362	

APPENDIX.

Containing :—

I. Mean Monthly Reading of the Barometer for 26 years (1890–1915).

II. Mean Monthly Temperature of the Air for 26 years (1890–1915).

III. Mean Monthly Temperature of Evaporation for 26 years (1890–1915).

IV. Highest Temperature of the Air in each month for 26 years (1890–1915).

V. Lowest Temperature of the Air in each month for 26 years (1890–1915).

VI. Monthly Amount of Rain for 26 years (1890–1915).

VII. Mean Monthly Amount of Cloud for 26 years (1890–1915).

VIII. Monthly Amount of Bright Sunshine for 35 years (1881–1915).

IX. Mean Monthly Amount of Ozone for 26 years (1890–1915).

X. Mean Monthly Velocity of the Wind for 35 years (1881–1915).

TABLE I.

Mean Monthly Readings of the Barometer for each Year, 1890 *to* 1915, *and for the Sixty-one Years,* 1855 *to* 1915, *at the Radcliffe Observatory, Oxford.*

(The Mean Monthly Readings for the previous Thirty-five Years will be found in vol. xlvi, p. 66.)

Year.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Means.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1890	29·680	29·973	29·606	29·600	29·612	29·770	29·683	29·663	29·920	29·877	29·646	29·806	29·736
1891	29·906	30·231	29·596	29·743	29·557	29·795	29·706	29·582	29·768	29·528	29·609	29·728	29·729
1892	29·632	29·570	29·796	29·788	29·764	29·769	29·791	29·694	29·746	29·486	29·810	29·759	29·717
1893	29·826	29·469	29·897	29·932	29·830	29·779	29·671	29·800	29·642	29·678	29·766	29·752	29·754
1894	29·621	29·810	29·736	29·633	29·717	29·782	29·661	29·701	29·916	29·687	29·732	29·790	29·732
1895	29·467	29·866	29·494	29·670	29·859	29·847	29·645	29·679	29·917	29·616	29·640	29·563	29·689
1896	30·112	30·096	29·574	29·932	30·012	29·713	29·791	29·805	29·526	29·503	29·914	29·539	29·793
1897	29·661	29·862	29·436	29·626	29·748	29·793	29·791	29·595	29·770	29·939	29·955	29·694	29·739
1898	30·085	29·724	29·666	29·680	29·611	29·764	29·891	29·788	29·873	29·601	29·614	29·823	29·760
1899	29·587	29·653	29·855	29·594	29·790	29·838	29·850	29·865	29·635	29·835	29·948	29·660	29·759
1900	29·686	29·334	29·781	29·753	29·744	29·702	29·776	29·728	29·900	29·739	29·502	29·672	29·693
1901	29·790	29·834	29·533	29·606	29·860	29·824	29·771	29·820	29·686	29·700	29·942	29·415	29·732
1902	29·930	29·641	29·620	29·721	29·753	29·689	29·806	29·700	29·843	29·757	29·641	29·824	29·744
1903	29·738	29·893	29·593	29·667	29·658	29·816	29·711	29·635	29·794	29·407	29·830	29·514	29·688
1904	29·703	29·350	29·751	29·719	29·722	29·830	29·801	29·792	29·842	29·881	29·846	29·705	29·745
1905	30·042	29·947	29·495	29·619	29·906	29·729	29·832	29·658	29·748	29·809	29·464	30·001	29·771
1906	29·716	29·548	29·781	29·856	29·634	29·904	29·810	29·766	29·981	29·611	29·655	29·741	29·750
1907	30·100	29·795	29·950	29·548	29·637	29·638	29·814	29·773	29·898	29·413	29·752	29·529	29·737
1908	29·922	29·866	29·615	29·727	29·769	29·862	29·791	29·768	29·749	29·899	29·828	29·688	29·790
1909	29·935	29·916	29·289	29·753	29·874	29·744	29·710	29·779	29·811	29·570	29·805	29·442	29·719
1910	29·617	29·410	29·927	29·610	29·661	29·665	29·655	29·664	30·004	29·790	29·417	29·464	29·657
1911	30·095	29·949	29·693	29·789	29·762	29·765	29·933	29·778	29·835	29·680	29·497	29·484	29·772
1912	29·703	29·422	29·460	29·932	29·741	29·588	29·696	29·511	29·931	29·694	29·765	29·667	29·676
1913	29·537	29·934	29·622	29·615	29·670	29·848	29·830	29·827	29·730	29·619	29·661	29·868	29·730
1914	29·920	29·494	29·388	29·851	29·866	29·813	29·647	29·793	29·844	29·779	29·638	29·349	29·698
1915	29·390	29·369	29·766	29·836	29·801	29·803	29·664	29·778	29·776	29·795	29·713	29·385	29·673
Means for 61 Years.	29·757	29·742	29·669	29·708	29·747	29·770	29·748	29·726	29·762	29·681	29·705	29·690	29·725

TABLE II.

Mean Monthly Readings of the Dry Bulb Thermometer for each Year, 1890 to 1915, and for the Sixty-one Years, 1855 to 1915, at the Radcliffe Observatory, Oxford.

(The Mean Monthly Readings for the previous Thirty-five Years will be found in vol. xlvi, p. 67.)

Year.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
1890	43·0	37·1	43·3	45·0	53·3	57·0	58·7	58·2	58·9	48·9	42·9	28·9	47·93
1891	34·0	37·8	39·1	44·1	49·0	58·8	59·2	57·6	57·8	49·5	42·6	39·9	47·45
1892	36·4	38·8	36·7	46·4	54·1	57·3	57·7	60·5	55·2	44·8	43·5	35·7	47·26
1893	35·6	41·0	46·1	52·0	56·7	61·2	62·1	64·7	56·5	50·4	41·2	40·3	50·65
1894	38·4	41·5	44·1	49·9	49·3	57·2	60·7	57·9	53·0	49·1	46·1	41·4	49·05
1895	33·0	28·7	41·9	47·4	56·1	60·7	60·6	61·3	60·6	45·4	46·8	39·7	48·52
1896	40·7	40·1	45·6	49·0	54·2	62·2	63·2	58·8	56·1	45·4	39·9	40·1	49·61
1897	35·0	43·5	44·5	45·6	51·2	60·4	63·2	61·8	54·5	49·8	45·3	40·6	49·62
1898	43·7	40·9	39·6	47·9	50·9	57·3	61·2	63·3	60·7	52·4	45·7	45·8	50·78
1899	42·1	41·8	41·1	46·9	51·3	61·6	65·2	66·0	57·3	47·8	46·9	36·5	50·38
1900	40·4	37·4	38·5	48·3	51·2	58·6	66·3	60·2	57·3	50·6	45·9	45·6	50·02
1901	38·1	35·9	39·2	48·5	53·3	58·7	65·1	61·5	57·5	49·8	40·2	38·7	48·88
1902	41·4	35·0	44·6	46·5	48·5	57·5	60·3	59·1	55·6	49·7	44·6	40·8	48·63
1903	40·3	45·0	45·5	44·2	52·2	55·6	60·4	58·6	56·5	51·8	43·8	38·7	49·38
1904	39·4	38·6	40·3	48·8	52·3	57·0	64·2	60·6	54·5	49·4	40·9	39·2	48·77
1905	37·9	41·9	44·9	45·7	52·6	58·3	64·8	59·6	54·9	45·0	41·2	39·8	48·88
1906	42·3	38·0	41·5	46·2	52·0	58·5	62·6	64·2	58·5	52·7	45·8	37·8	50·00
1907	38·4	37·5	44·2	46·1	52·1	55·0	57·8	59·2	57·1	50·4	44·5	41·5	48·65
1908	36·5	42·0	40·1	43·0	55·5	59·3	61·8	59·5	55·6	53·0	46·2	39·5	49·33
1909	38·2	36·5	39·0	49·2	53·8	53·3	58·9	61·6	54·0	52·0	41·3	40·3	48·18
1910	39·4	42·1	42·7	46·0	52·6	59·3	57·1	60·0	54·9	51·7	38·1	44·3	49·02
1911	38·5	41·2	41·2	45·8	55·6	59·4	67·8	66·6	59·7	49·4	43·6	44·2	51·08
1912	38·8	43·0	45·5	49·1	55·4	57·6	61·3	55·9	52·4	46·6	43·8	45·8	49·60
1913	41·3	40·5	44·4	46·9	53·6	59·3	58·4	60·6	57·7	52·5	48·2	41·2	50·38
1914	38·2	44·3	43·4	50·8	52·7	59·5	60·9	61·8	56·7	51·1	44·6	41·2	50·43
1915	39·5	40·4	41·6	46·9	53·0	59·2	59·3	60·6	57·1	48·6	38·2	43·3	48·98
Means for 61 Years.	38·65	39·81	41·79	46·99	52·46	58·51	61·58	60·74	56·38	49·53	43·00	39·91	49·11

TABLE III.

Mean Monthly Readings of the Wet Bulb Thermometer for each Year, 1890–1915, ***and for the Sixty-one Years,*** 1855 *to* 1915, ***at the Radcliffe Observatory, Oxford.***

(The Mean Monthly Readings for the previous Thirty-five Years will be found in vol. xlvi, p. 68.)

Year.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
1890	41·5	35·9	41·1	42·0	49·5	53·6	55·0	54·6	55·6	46·5	41·4	28·3	45·42
1891	32·7	36·2	36·9	41·3	46·1	55·2	55·1	54·5	54·5	47·2	41·2	38·5	44·95
1892	35·0	37·2	34·3	42·3	49·8	53·0	54·2	56·5	52·0	42·7	42·5	34·5	44·50
1893	34·5	39·4	42·2	46·3	51·4	55·2	57·0	58·9	52·2	47·7	39·4	38·9	46·93
1894	36·9	39·6	41·4	47·0	45·2	53·4	56·6	54·8	50·6	47·3	44·5	39·9	46·43
1895	31·7	27·1	39·8	44·3	50·2	54·1	55·4	56·9	56·8	43·3	45·2	38·4	45·27
1896	39·2	38·5	43·1	45·2	48·9	56·8	57·1	54·3	53·6	43·5	37·9	38·7	46·40
1897	33·7	41·8	41·7	42·4	46·4	56·2	57·7	57·3	51·6	47·4	43·8	39·1	46·59
1898	42·1	38·6	37·1	44·1	47·5	53·2	55·8	58·3	55·8	50·4	44·2	44·0	47·59
1899	40·1	39·7	38·6	43·5	47·1	55·7	59·1	59·7	53·1	45·8	45·0	35·3	46·89
1900	38·8	36·1	36·0	44·2	47·1	54·0	59·8	56·1	54·1	47·6	44·4	44·1	46·86
1901	36·8	34·4	37·1	44·0	48·6	52·7	60·0	57·0	54·2	47·5	38·5	37·4	45·68
1902	39·5	33·7	42·2	42·5	44·8	53·4	54·8	55·6	52·4	47·4	43·0	39·0	45·69
1903	38·6	42·5	42·7	40·6	48·7	51·6	55·9	54·8	53·6	49·6	42·1	37·4	46·51
1904	38·1	36·8	38·2	44·9	49·0	52·4	58·6	55·9	51·4	47·6	39·6	38·1	45·88
1905	36·1	39·5	42·4	42·8	47·5	54·8	59·6	55·1	51·8	42·5	39·8	38·7	45·88
1906	40·2	36·0	38·8	41·3	48·4	53·8	57·0	58·7	53·3	50·5	44·2	36·2	46·53
1907	36·3	35·3	40·6	43·0	48·1	51·2	54·0	55·1	53·7	48·1	43·0	39·9	45·69
1908	35·1	39·6	37·6	40·1	51·7	54·4	56·9	54·8	52·5	51·3	44·2	38·5	46·39
1909	36·6	34·2	37·1	44·3	47·8	50·3	54·8	57·3	51·7	49·7	39·4	39·0	45·18
1910	37·7	40·1	39·7	42·9	48·8	55·5	53·6	56·1	51·7	49·6	36·5	42·7	46·24
1911	36·8	38·7	39·0	42·1	51·5	54·4	59·2	60·0	53·6	47·2	41·3	42·6	47·20
1912	37·8	41·3	43·2	44·2	51·0	53·6	57·5	52·8	49·0	44·5	41·9	44·0	46·73
1913	39·9	38·3	41·5	43·7	49·8	53·9	54·6	55·8	54·6	50·5	46·0	39·3	47·32
1914	36·6	42·2	41·2	46·2	48·1	54·2	56·8	57·7	52·1	48·5	42·8	39·6	47·17
1915	37·8	38·4	38·9	42·9	48·6	53·5	55·0	56·4	52·9	46·8	36·5	41·7	45·78
Means for 61 Years.	37·25	38·08	39·35	43·50	48·39	54·09	56·87	56·46	53·14	47·33	41·28	38·52	46·19

TABLE IV.

Highest Temperature of the Air in each month for the Years* 1890 *to* 1915, *and the Means for the Sixty-four Years,* 1852 *to* 1915, *at the Radcliffe Observatory, Oxford.

(The Highest Temperature in each month for the previous Thirty-eight Years will be found in vol. xlvii, p. 65.)

Year.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	°	°	°	°	°	°	°	°	°	°	°	°
1890	55·2	49·6	61·6	62·9	74·7	73·9	73·4	74·0	72·0	62·0	56·1	43·6
1891	50·6	59·7	56·1	62·0	76·2	72·7	76·5	72·0	77·0	61·5	55·1	56·0
1892	50·2	52·0	57·6	67·2	75·3	78·5	80·2	75·9	68·6	58·2	58·0	52·3
1893	52·0	54·6	63·2	77·8	76·7	83·8	83·2	86·7	76·5	64·9	58·8	55·1
1894	51·6	53·9	61·6	67·1	64·3	80·1	82·0	71·7	66·7	61·5	59·9	52·6
1895	50·4	44·7	61·3	61·1	82·4	79·3	78·1	78·6	79·6	70·0	61·0	53·7
1896	52·6	54·5	63·4	63·1	75·0	82·0	81·7	73·7	68·9	62·6	48·8	52·1
1897	48·2	55·8	60·0	67·1	68·0	81·0	79·3	84·7	67·0	65·0	59·0	57·0
1898	54·5	54·0	54·6	64·4	69·2	72·9	80·0	81·9	87·9	66·3	60·1	56·0
1899	53·5	61·0	59·6	63·9	71·3	79·6	85·2	83·2	82·5	62·9	61·1	55·3
1900	52·7	56·2	55·6	70·8	67·8	84·0	87·0	78·8	73·4	69·1	59·0	55·8
1901	51·5	48·9	53·2	70·7	77·8	76·1	87·6	79·1	68·9	70·0	54·8	55·2
1902	52·4	53·2	58·2	64·0	70·8	80·3	82·6	75·2	72·4	62·2	56·9	55·1
1903	54·0	57·2	63·6	59·0	75·1	81·4	82·0	73·5	71·8	64·3	54·1	50·1
1904	53·7	53·2	56·0	64·0	69·3	75·9	82·4	82·4	69·1	65·6	58·1	55·1
1905	54·0	52·8	58·5	60·2	73·5	75·9	79·6	74·2	69·9	58·0	54·2	53·2
1906	54·1	49·2	63·7	67·6	71·6	80·0	79·9	87·3	89·2	68·5	60·0	54·8
1907	51·0	52·6	64·0	68·0	77·2	72·7	76·5	72·3	74·2	65·2	57·3	55·2
1908	53·2	51·8	52·7	59·8	75·0	79·1	81·4	79·7	74·6	72·1	58·9	51·8
1909	49·3	53·5	58·3	67·5	78·7	67·8	72·9	82·4	67·2	66·2	54·0	52·7
1910	52·8	53·8	57·3	62·1	73·0	79·2	73·2	73·4	71·2	67·5	54·9	54·0
1911	50·3	54·4	57·9	63·4	74·1	80·3	89·2	92·6	88·5	62·5	57·9	52·4
1912	50·1	57·6	60·7	67·8	75·9	77·6	84·4	69·4	65·2	63·2	55·4	55·4
1913	51·1	54·3	54·7	64·9	78·0	79·5	77·2	79·1	74·2	65·1	58·2	53·3
1914	54·1	55·4	63·6	69·7	75·2	83·6	86·1	78·9	76·3	64·8	57·9	55·1
1915	51·4	50·7	55·5	68·7	74·1	80·3	75·0	74·6	74·4	62·6	56·2	55·9
Means for 64 Years.	52·6	53·7	59·2	66·6	73·6	78·8	81·3	79·2	73·5	65·2	57·4	54·2

TABLE V.

Lowest Temperature of the Air in each month for the Years 1890 to 1915, and the Means for the Sixty-four Years, 1852 to 1915, at the Radcliffe Observatory, Oxford.

(The Lowest Temperature in each month for the previous Thirty-eight Years will be found in vol. xlvii, p. 66.)

Year.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	°	°	°	°	°	°	°	°	°	°	°	°
1890	18·6	26·0	18·5	29·1	36·3	36·8	45·0	41·0	37·4	24·2	22·5	8·5
1891	12·8	23·2	15·2	26·5	30·7	42·6	44·0	43·3	44·7	30·5	30·0	15·7
1892	19·7	17·4	22·7	24·8	31·0	36·7	43·5	40·2	36·0	26·5	27·4	14·3
1893	14·0	27·7	24·4	28·0	37·8	37·0	48·8	43·3	36·9	28·7	25·5	20·7
1894	11·9	23·8	29·9	34·0	32·8	41·0	48·0	43·4	36·7	31·7	33·6	27·2
1895	12·9	8·3	24·0	30·0	37·3	40·9	47·1	44·0	36·9	26·0	30·0	25·2
1896	27·3	21·9	31·3	33·8	32·2	45·5	45·3	45·2	39·3	30·8	24·0	25·4
1897	22·8	31·3	29·0	30·3	32·2	43·8	43·5	48·6	38·1	32·9	31·6	22·0
1898	30·2	23·0	27·5	29·5	34·0	40·1	43·5	47·1	36·9	35·6	27·6	29·8
1899	27·2	23·0	20·9	30·6	33·6	42·3	48·5	47·5	38·6	30·4	25·3	15·9
1900	26·1	14·9	24·0	27·5	35·0	42·9	47·0	47·2	40·9	35·5	29·0	27·0
1901	18·2	19·8	23·5	32·8	33·6	40·5	49·7	44·0	40·0	30·0	22·0	20·1
1902	23·3	20·3	28·1	31·5	31·4	40·9	42·4	45·7	35·6	34·0	28·7	20·5
1903	21·7	27·9	31·5	28·0	37·2	40·4	44·1	43·4	38·4	37·0	29·8	25·0
1904	26·0	25·3	28·0	35·4	37·4	43·0	50·4	42·3	36·6	32·7	17·3	23·5
1905	22·2	30·6	30·3	32·4	33·9	45·6	46·5	45·6	39·5	27·4	26·1	27·3
1906	28·5	24·4	27·2	30·1	33·9	40·9	43·4	46·3	36·2	33·2	28·6	21·8
1907	20·4	21·7	25·7	31·3	35·9	43·0	42·5	45·0	35·7	34·8	29·8	30·0
1908	19·0	25·1	27·8	28·4	39·1	41·2	50·4	43·9	39·5	31·6	22·4	10·9
1909	22·3	20·4	19·1	28·4	34·3	42·8	46·3	45·3	39·6	30·5	27·9	24·0
1910	18·6	29·8	29·3	29·5	33·5	45·7	46·0	49·3	37·3	42·2	22·0	27·8
1911	25·4	21·9	30·2	26·6	40·4	41·7	47·7	47·4	38·3	29·5	28·5	30·9
1912	20·9	18·3	33·9	29·4	37·0	42·8	46·4	42·2	38·7	29·0	26·6	25·9
1913	29·7	28·1	28·6	28·3	36·3	43·9	47·2	45·3	41·4	32·4	26·8	25·8
1914	21·3	29·0	29·5	34·4	32·1	42·0	45·4	46·9	34·3	35·1	27·2	26·8
1915	31·4	26·6	26·4	32·2	33·4	40·3	47·7	43·9	36·5	30·3	20·1	28·4
Means for 64 Years.	21·7	23·3	25·0	29·5	33·7	41·2	45·3	44·1	38·1	31·5	26·2	22·0

TABLE VI.

Monthly Amount of Rain, on the Ground, for each Year, 1890 *to* 1915, *and the Means for the Sixty-five Years,* 1851 *to* 1915, *at the Radcliffe Observatory, Oxford.*

(The Monthly Amounts for the previous Thirty-nine Years will be found in vol. xlvi, p. 69.)

Year.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Amount.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1890	2·009	0·737	0·861	1·018	1·780	1·757	3·048	2·476	1·035	1·322	1·850	0·519	18·412
1891	1·551	0·100	1·395	0·948	2·590	1·434	2·450	4·710	1·441	5·903	2·467	3·386	28·375
1892	0·470	0·725	0·374	0·767	1·344	2·067	3·323	3·091	2·322	3·377	1·936	0·989	20·785
1893	1·693	2·728	0·370	0·060	0·906	0·769	3·893	1·093	0·634	2·898	1·680	1·883	18·607
1894	1·946	1·627	1·773	1·850	1·544	2·910	3·333	2·743	1·850	3·519	4·964	2·074	30·133
1895	2·612	0·173	1·541	1·822	0·182	1·126	3·597	2·466	0·642	3·019	4·464	2·223	23·867
1896	0·659	0·400	2·722	0·682	0·241	2·557	1·471	3·147	6·009	3·189	0·862	3·036	24·975
1897	1·757	2·367	2·899	2·112	0·701	2·919	2·635	4·292	2·351	1·410	1·174	2·575	27·192
1898	0·504	1·293	0·693	1·419	2·429	1·373	0·595	1·726	0·409	4·945	1·996	2·566	19·948
1899	2·965	2·021	0·289	1·913	1·492	0·794	1·688	1·875	2·295	2·756	2·626	1·310	22·024
1900	2·366	4·252	0·523	0·947	1·397	2·903	0·730	3·311	0·666	2·175	1·916	3·390	24·576
1901	1·050	1·033	1·735	2·164	1·342	1·630	4·746	2·267	1·905	1·287	0·576	3·446	23·181
1902	0·735	1·105	1·331	1·248	1·823	2·133	0·698	2·386	1·232	1·642	2·281	1·442	18·056
1903	2·666	0·798	3·239	2·399	4·593	5·818	3·648	3·547	1·651	6·678	1·588	1·087	37·712
1904	3·278	3·071	1·150	0·872	3·305	1·109	3·480	1·609	1·295	0·901	1·590	1·895	23·555
1905	0·738	0·387	3·141	1·937	0·828	3·801	0·683	3·285	1·265	1·181	3·243	0·908	21·397
1906	3·513	1·590	1·266	0·352	1·771	3·424	1·053	0·996	0·982	4·133	3·245	1·904	24·229
1907	0·605	1·127	0·831	2·258	2·345	2·950	3·378	1·376	0·707	5·343	2·262	3·842	27·024
1908	1·656	0·872	2·657	4·309	1·471	1·690	2·135	3·032	1·654	1·169	1·121	1·959	23·725
1909	0·819	0·425	2·503	1·981	1·898	3·990	2·417	3·290	3·116	3·570	0·636	3·085	27·730
1910	1·585	2·940	0·606	2·872	2·073	2·983	2·018	1·895	0·439	3·722	3·087	4·958	29·178
1911	0·802	1·384	1·648	1·151	2·206	1·194	0·422	1·027	1·439	2·459	2·433	5·000	21·165
1912	4·387	2·130	3·279	0·020	2·172	3·262	3·093	4·866	1·177	3·176	1·849	3·385	32·796
1913	3·028	0·973	2·677	3·808	2·698	0·567	0·790	0·803	1·873	4·755	2·496	0·945	25·413
1914	0·547	2·019	4·099	1·172	1·460	3·049	3·051	1·858	0·875	2·943	2·913	5·818	29·804
1915	3·196	3·619	1·294	0·827	3·561	1·383	4·495	1·375	2·922	2·090	2·537	5·003	32·302
Means for 65 Years.	2·092	1·610	1·685	1·680	1·999	2·414	2·528	2·405	2·188	2·889	2·227	2·212	25·931

TABLE VII.

Mean Monthly Amount of Cloud for each Year, 1890 *to* 1915, *and for the Sixty-six Years,* 1850 *to* 1915, *at the Radcliffe Observatory, Oxford.*

Scale = 0·0 to 10·0.

(The Mean Monthly Amounts for the previous Forty Years will be found in vol. xlvi, p. 70.)

Year.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Means.
1890	6·9	6·5	6·7	6·8	5·5	7·5	7·4	6·1	5·3	5·7	6·6	9·2	6·7
1891	5·4	5·7	7·3	7·3	6·8	6·1	6·7	7·3	5·8	6·0	8·0	6·3	6·6
1892	7·1	7·2	6·3	4·2	6·0	6·1	7·2	6·6	6·6	6·6	7·4	6·5	6·5
1893	7·2	7·4	4·4	3·9	6·0	5·8	7·4	5·8	6·2	6·5	7·3	7·0	6·2
1894	7·3	6·7	5·5	6·7	7·3	7·5	7·5	8·0	7·1	7·8	6·6	7·5	7·1
1895	7·6	6·1	7·4	7·1	5·0	5·7	7·1	6·1	3·8	7·2	7·7	7·9	6·6
1896	8·0	6·8	7·6	7·1	6·0	6·6	6·0	7·4	7·7	6·7	5·8	7·9	7·0
1897	7·8	9·3	7·5	7·5	6·1	7·1	5·4	6·7	6·9	6·6	8·3	6·9	7·2
1898	8·9	7·4	7·0	6·4	7·9	7·0	6·4	6·8	4·3	7·7	7·9	7·2	7·1
1899	6·7	5·8	5·1	7·4	6·2	5·7	5·5	5·0	6·3	5·4	7·3	7·4	6·2
1900	7·7	7·0	7·2	5·5	7·1	7·0	5·5	6·3	5·4	6·7	7·3	8·0	6·7
1901	7·5	7·9	7·6	5·7	5·0	6·3	5·7	5·4	6·7	6·6	6·5	6·3	6·4
1902	6·9	7·2	7·5	6·4	7·6	6·6	6·4	7·8	5·7	7·6	7·6	7·9	7·1
1903	6·4	7·5	6·5	6·1	6·8	6·7	6·8	6·9	6·3	7·2	7·6	7·8	6·9
1904	7·6	7·3	7·2	6·4	7·2	6·6	5·7	5·1	5·0	7·0	6·5	7·7	6·6
1905	5·5	7·5	6·8	8·3	5·6	7·5	5·3	7·0	6·9	6·4	7·0	7·6	6·8
1906	6·6	6·4	6·9	4·6	7·7	5·9	5·8	5·9	5·2	7·1	7·6	7·1	6·4
1907	6·7	6·4	4·2	6·9	7·4	7·7	7·0	7·1	4·8	6·3	6·6	7·4	6·5
1908	6·5	6·5	7·5	7·1	6·7	5·5	6·3	6·2	6·7	5·9	5·9	8·0	6·6
1909	6·8	5·3	7·9	4·9	4·9	8·1	7·2	5·1	7·7	7·4	5·6	7·3	6·5
1910	6·7	6·4	5·6	7·4	6·4	7·5	7·6	8·0	6·8	7·6	5·9	7·5	7·0
1911	7·1	6·9	7·9	7·1	6·4	6·0	3·9	5·7	3·9	6·3	7·1	6·9	6·3
1912	7·5	7·5	7·9	4·7	7·2	7·2	7·0	7·4	6·4	4·7	7·6	7·1	6·8
1913	7·0	7·1	7·5	7·9	6·4	6·5	8·2	6·8	6·7	6·9	6·7	7·2	7·1
1914	7·7	6·6	7·3	3·8	6·4	5·5	7·0	6·1	4·4	7·3	6·7	6·9	6·3
1915	7·6	6·3	7·0	6·1	6·0	5·5	7·7	6·9	4·4	7·9	5·8	7·9	6·6
Means for 66 Years.	7·4	7·3	7·0	6·6	6·7	6·8	6·7	6·6	6·3	7·0	7·1	7·5	6·91

TABLE VIII.

Monthly Amount of Bright Sunshine during a period of Thirty-five Years, 1881 to 1915, at the Radcliffe Observatory, Oxford.

Year.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Amounts.
	hours.	hours.	hours.	hours.	hours.	hours.	hours.	hours.	hours.	hours.	hours.	hours.	hours.
1881	49·6	47·0	142·3	153·6	231·8	189·1	237·0	142·7	114·2	124·4	64·7	50·4	1546·8
1882	34·5	40·7	137·7	173·7	257·7	150·2	191·6	150·5	146·6	69·8	81·4	27·0	1461·4
1883	59·9	88·3	159·8	163·9	173·1	197·5	140·9	168·4	112·6	88·2	82·4	30·3	1465·3
1884	28·3	54·6	95·6	103·6	200·4	156·2	140·3	217·1	122·8	82·3	36·5	23·2	1260·9
1885	14·8	55·0	113·4	151·7	182·8	220·3	232·5	155·3	128·8	96·1	37·6	46·0	1434·3
1886	60·2	35·3	81·4	143·5	151·0	204·4	200·5	175·4	132·2	64·5	48·3	71·4	1368·1
1887	30·1	94·0	91·6	163·9	124·9	258·3	262·4	235·6	112·0	110·9	51·0	46·8	1581·5
1888	40·4	36·6	76·6	97·9	219·5	130·3	95·4	150·1	132·4	115·8	30·7	32·8	1158·5
1889	30·8	56·2	89·2	84·2	119·8	208·1	175·3	172·4	116·0	87·6	43·7	34·8	1218·1
1890	59·0	71·7	103·4	142·7	231·1	141·7	153·7	165·4	154·4	132·4	56·0	5·1	1416·6
1891	74·6	93·6	90·3	107·9	168·0	179·1	163·5	128·3	141·7	117·8	45·8	53·5	1364·1
1892	53·9	54·3	106·9	208·9	191·4	219·5	155·6	187·6	119·5	105·6	42·6	49·5	1495·3
1893	43·3	63·5	198·4	252·8	204·7	208·4	182·4	216·7	156·5	130·2	57·7	50·5	1765·1
1894	60·0	88·3	167·1	141·3	174·7	144·2	160·3	118·3	101·4	49·6	69·0	50·6	1324·8
1895	51·6	67·9	93·9	126·3	251·2	216·5	169·9	189·0	214·0	79·0	46·7	39·7	1545·7
1896	32·3	81·0	86·9	136·7	225·9	212·7	203·8	138·7	88·3	101·4	90·6	31·6	1429·9
1897	42·8	29·9	115·5	133·2	234·6	179·3	247·6	197·1	132·7	119·4	44·9	52·7	1529·7
1898	26·8	79·2	99·5	152·1	140·0	178·7	218·7	183·1	205·9	64·0	59·2	53·1	1460·3
1899	69·4	105·6	159·8	124·3	202·0	256·8	270·3	250·3	166·3	116·7	49·8	38·3	1809·6
1900	50·6	68·5	80·3	160·2	160·9	173·2	268·3	164·4	165·8	125·3	54·3	31·7	1503·5
1901	45·7	43·3	75·5	199·5	249·3	225·4	212·9	214·0	123·6	98·1	58·9	55·5	1601·7
1902	66·0	63·9	91·8	173·3	170·1	175·2	194·1	118·4	154·9	70·2	52·1	41·2	1371·2
1903	56·6	66·6	112·4	145·6	159·3	179·6	170·4	165·3	141·2	83·1	58·7	29·3	1368·1
1904	36·4	53·9	88·6	162·6	137·6	200·2	235·4	214·4	165·3	84·7	64·4	33·8	1477·3
1905	82·0	70·3	120·4	91·1	222·3	142·7	231·1	155·0	116·6	114·2	58·9	34·8	1439·4
1906	69·2	84·5	105·6	201·7	126·0	217·1	241·6	238·7	196·1	82·3	49·4	55·9	1668·1
1907	73·6	90·2	185·3	132·6	132·3	130·0	162·1	168·8	162·0	97·8	56·9	40·1	1431·7
1908	58·5	67·7	79·4	131·3	193·7	256·7	204·0	208·4	123·6	113·3	70·5	29·1	1536·2
1909	59·9	93·4	73·2	226·9	293·6	109·4	188·4	225·5	92·7	94·4	86·8	58·8	1603·0
1910	76·6	80·2	154·6	114·8	197·4	183·4	130·0	136·9	121·9	64·6	83·2	29·7	1373·3
1911	63·5	72·8	80·6	151·1	185·6	208·5	310·4	224·5	222·6	104·1	60·3	58·2	1742·2
1912	51·8	45·9	86·5	239·1	150·0	178·3	137·8	97·7	112·3	122·1	31·6	43·8	1296·9
1913	51·3	57·6	97·3	106·5	183·8	204·2	98·6	151·6	117·5	91·9	88·0	50·9	1299·2
1914	44·9	72·4	89·4	243·8	192·5	248·0	164·5	188·2	201·8	91·1	67·5	55·8	1659·9
1915	44·8	91·9	102·8	155·5	229·2	247·4	172·4	176·0	186·6	57·6	84·7	37·7	1586·6
Means for 35 Years.	51·2	67·6	109·5	154·2	190·5	192·3	192·1	176·9	142·9	95·7	59·0	42·1	1474·1